POSITIONS ACCEPTED BY THE 1990 GRADUATES OF PHARMACY RESIDENCY AND FELLOWSHIP PROGRAMS

by

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ABSTRACT

Graduates of pharmacy residency and fellowship programs are actively recruited through national advertisements and personnel placement services. Little current information is available about the types of positions accepted by this group of highly trained pharmacists. Understanding the job characteristics that influence an applicant's acceptance of a particular position would enable employers to more effectively recruit pharmacists with advanced training to their institution.

A questionnaire was mailed to the 1990 graduates of the American Society of Hospital Pharmacists - accredited clinical and specialized residencies and of fellowships offered by members of the American College of Clinical Pharmacy. The information requested on the survey included demographics, education and work history, geographic mobility, and future plans including positions accepted. Respondents were asked to rate the importance of 25 job characteristics in selecting an ideal job and to identify and rank the 5 characteristics most important in selecting their actual position.

The data were analyzed to compare the responses of 107 clinical residents, 50 specialized residents and 38 fellows. The respondents were desiring positions that would be

interesting, challenging, personally rewarding, encourage the use of professional knowledge and allow for professional development.

Of the survey respondents, 115 had accepted a job at the time of the survey. Seventy-five percent of the residents took positions either with a hospital or as a faculty member with hospital obligations. The jobs were primarily clinical; only 25% of clinical residents and 10% of specialized residents expected to have a distributive component to their job. Half of the fellows accepted faculty positions. Other fellows took positions in hospitals or drug research programs.

In ranking the job characteristics that actually determined acceptance of jobs, it is apparent applicants are taking jobs that are perceived to be interesting, challenging, personally rewarding and offer the opportunity to use professional knowledge and to be creative and innovative. Consistency with personal goals and opportunity for personal development are also important. Emphasis on these aspects of available positions may result in more effective recruiting efforts. Factors such as salary, benefits and work environment were not identified as determining acceptance of positions.

Dedicated to my "Pharm. Ad. babies,"

Ryan and Krista.

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CHAPTER I

INTRODUCTION

Postgraduate pharmacy residency and fellowship programs have expanded from strictly management training in the 1930s to include a wide variety of programs offered by several pharmacy organizations and many individual practitioners. The programs have evolved along with the practice of institutional pharmacy to focus on the application and management of clinical services. These programs have been credited with providing pharmacy practice with innovative and progressive practitioners who have contributed to the depth and quality of pharmacy services.

A review of pharmacy literature does not provide a clear picture of the utilization of recent graduates of residency and fellowship programs. A 1983 survey of directors of American Society of Hospital Pharmacists (ASHP)-accredited residencies provided categorization of residency graduates by position title at the time of the survey.[1] This survey reflected the make-up of the graduates from 1962 through 1982 therefore did not include many program participants from the clinical era begun during the 1970s. In 1984, members of the American College of Clinical

Pharmacy (ACCP) who were fellowship directors were surveyed to determine the employment status of 1981 - 1984 graduates of their programs.[2] Not only is this survey information dated, the results were dependent on the directors' ability to track their graduates. Another survey was conducted to compare the first and current positions of California entry-level Pharm.D. graduates (1970 - 1981) with and without postgraduate training.[3] This survey as well as others have demonstrated a movement over time from initial clinical practice to administrative positions.

The perceived characteristics or features of pharmacy positions may determine the interest in and eventual acceptance of specific jobs. Several studies have attempted to determine what job characteristics are important in job selection,[3,4,5] but the question has not been specifically directed to graduates of pharmacy residencies and fellowships. Identification of the job characteristics important to residents and fellows as they make employment decisions is crucial to employers directing extensive recruiting efforts.

Statement of the Problem

As a consequence of the level of sophistication necessary to meet the expectations of other professionals and to best care for patients, employers recognize the value of postgraduate pharmacy training. National recruitment

efforts and personnel placement services offer pharmacy residents and fellows many employment opportunities. Understanding the factors that determine an applicant's acceptance of a particular job will enable employers to more effectively recruit pharmacists with advanced training to their institutions.

Objective of this Study

Given the lack of specific information regarding the positions accepted by graduates of residency and fellowship programs, this study determined the plans of the 1990 graduates of ASHP-accredited clinical and specialized residency programs and fellowships offered by ACCP members. The importance of various job characteristics in the consideration and selection of positions by these highly trained pharmacists was also studied. Identification of the types of jobs desired and accepted by residents and fellows and may help employers focus recruitment efforts.

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CHAPTER II

BACKGROUND

Pharmacy education and practice have experienced a series of changes and growth phases that have expanded the role of pharmacists in the provision of quality health care. In recognizing these opportunities, weaknesses in training have been exposed and pharmacy educators have been trying to develop a system to provide society with practitioners trained to meet the evolving needs of consumers in pharmacy practice. The basic education of pharmacists has grown from on-the-job training, to 4, 5 and then 6 years of college education. Currently, postgraduate programs are graduating highly trained and actively recruited pharmacists. A review of the development and contribution of pharmacy residencies and fellowships is important in understanding the opportunities and motivations of pharmacy practice.

Development of Residencies and Fellowships

The pharmacy "internships" developed during the 1930s were designed to train pharmacists for management positions. In 1948 the American Society of Hospital Pharmacists (ASHP) established standards for two types of pharmacy internships in hospitals. The nonacademic internship involved a period

of training in a hospital pharmacy; the academic internship added postgraduate, academic study to this practical experience, and led to a Master's degree. In 1962 ASHP renamed the "internships" as "residencies" and established standards and an accreditation process for these programs. A residency was defined as "a postgraduate program of organized training."[1] In response to the practice emphasis of the 1970s, clinical pharmacy residencies were developed. In 1980, ASHP issued accreditation standards for clinical and specialized residency programs. During the 1970s, research oriented postgraduate "fellowships" were also implemented by members of the American College of Clinical Pharmacy (ACCP).

A number of pharmacy organizations sponsor or list available residency and fellowship programs. By 1986 it was apparent that the lack of conformity in the use of the terms "residency" and "fellowship" may have misled participants regarding program purposes and content.[1] Ohio State University Associate Professor, Milap Nahata, expressed concern that the objectives of residencies and fellowships were not clearly differentiated.[2] Nahata felt many fellowship applicants were actually interested in an advanced clinical experience with some exposure to research rather than developing skills to become independent researchers. By differentiating residencies and fellowships based on substance, he felt students would make more appropriate and informed decisions about further educational

endeavors.

Definitions

In 1986 representatives of the American Association of Colleges of Pharmacy, American College of Apothecaries, American College of Clinical Pharmacy, American Pharmaceutical Association, American Society of Consultant Pharmacists, American Society of Hospital Pharmacists and the National Association of Retail Druggists met to develop the following consensus definitions for "residency" and "fellowship."[1]

> Residency: A pharmacy residency is an organized, directed, postgraduate training program in a defined area of pharmacy practice.
>
> Fellowship: A pharmacy fellowship is a directed, highly individualized, postgraduate program designed to prepare the participant to become an independent researcher.

Although these definitions were developed and were accepted by the participating organizations, there is still concern regarding the lack of accreditation of fellowships and consistency of the available programs. Some have criticized fellowship programs for becoming extensions of, or substitutes for residency programs, with as little as 20% of fellowship time devoted to research.[2,3] In 1984 the American Association of Colleges of Pharmacy (AACP) listed characteristics felt necessary for a strong fellowship program. Features included enrollment of Pharm.D. students with residency experience, no fewer than 15 semester hours

of formal coursework, a faculty of clinical and basic scientists in charge of developing and monitoring the program, and no less than 80% of the fellow's time engaged in research and research related efforts.[3] The degree of research expertise developed by postgraduate fellows is still debated as is their potential for contribution to pharmacy research.

Impact of Postgraduate Programs

At the 1989 Residency Preceptor Conference, Joe E. Smith, Director of Pharmacy at Thomas Jefferson University Hospital, stated "residency training is the most important contribution to the advancement of hospital pharmacy practice that has been made from within the profession itself."[4] Smith believes that graduates of residency programs are exposed to the values, philosophy and vision of the profession and that they emerge as committed, energized and motivated practitioners. Building new residency programs allows for the advancement of hospital pharmacy, and the residency accreditation process raises the minimum level of the standard of practice and encourages excellence.

Paul Pierpaoli, Director of Pharmacy Services, Rush-Presbyterian-St. Luke's in Chicago, believes residency training has provided a means of effecting necessary changes within the profession. The "investment in training" made by pharmacy has affected the "growth in the scope, depth, and

quality of pharmaceutical services in American hospitals."[5]

There are three tiers of educational training among pharmacists: Bachelor's of Science (B.S.) degree, Doctor of Pharmacy (Pharm.D.) degree, and completion of a residency or fellowship. More than 90% of pharmacists have no training beyond the B.S. degree, and this lack of educational differentiation is believed by some to have poorly represented the profession in workforce planning by government agencies, health personnel reports and society at large.[6] A model currently used to estimate future demand for pharmacists depends on the projected number of pharmacies or prescriptions written. Knapp and Letendre[6] believe a better model would predict demand in terms of the need for pharmacists with specific knowledge and skills. The current trend toward increasing the number of Pharm.D. graduates will encourage the development of more residency and fellowship programs. These practitioners may enhance the image of pharmacy as a profession, creating a demand for pharmacists whose practice requires advanced skills and training.

Job Selection

In December 1985, Henderson et al. distributed a questionnaire to 4061 pharmacy students enrolled at 59 schools in their final year and to 2312 faculty at 65 pharmacy schools.[7] Their objective was to identify the perceptions held by the faculty and students toward various

pharmacy career opportunities and to determine what experiences were influencing their perceptions. The opportunities evaluated were chain pharmacy, independent community pharmacy, hospital pharmacy, long term care pharmacy, the pharmaceutical industry, and the wholesale drug industry. Twenty-one aspects of jobs were rated with regard to how well the respondent felt the feature described each pharmacy practice type. The same aspects were evaluated to assess their perceived importance in selecting a practice site.

The twenty-one statements evaluated were:

The practice...

is interesting.
is challenging.
is prestigious.
is personally rewarding.
provides good opportunity for advancement.
is beneficial to society.
provide security.
is financially rewarding.
allows person to use professional knowledge.
provides autonomy.
provides opportunity to interact with patients.
provides opportunity to interact with other health professionals.
allows for professional development.
provides good fringe benefits.
interferes with life outside employment hours.
has high stress levels and high daily pressure.
provides an opportunity for creativity and innovation.
provides me with a feeling of high regard by supervisors.
allows me to have influence over policy and procedures within practice.
provides good working conditions.
provides me with ample support personnel.

The authors found perceptual differences toward the attributes of various practice sites between faculty of different disciplines as well as between faculty and students.

In response to this survey, the faculty group identified "personally rewarding," "interesting," "challenging," "allows the individual to use professional knowledge," and "allows for professional development" as the most important job characteristics to consider during position selection. Although differences between faculty disciplines were identified, as a whole, hospital pharmacy was perceived as the optimal practice area and chain pharmacy the least favorable practice area. Postgraduate educational experience of the faculty respondents was not differentiated with respect to their perceptions of different practice sites.

The students selected "personally rewarding," "interesting," "allow the individual to use professional knowledge," "good working conditions," "challenging" and "allows for professional development" as the most important aspects during practice site selection. Although hospital pharmacy practice was perceived to best afford pharmacists these job characteristics, only 27.4% of the students indicated a preference for a hospital-based practice. Since only perceptions of practice were measured, it is not known what form of employment the students actually accepted.

Unable to determine a relationship between the faculty and student perceptions, the authors concluded that internship and employment background, rather than faculty persuasion, influenced student perception of career opportunities. The results of this study were probably useful to professional organizations interested in assessing their image and in recruiting pharmacists into their practice area.

In 1987, Carter and Segal included the job aspects suggested in Henderson's article in a survey to determine what influenced 53 newly licensed pharmacists in the selection of their first practice setting.[8] The authors clarified "provides security" by substituting two statements: "provides a safe work environment" and "provides job security." They also added "is in the preferred geographic location," an important consideration given the national recruitment efforts of employers. The surveyed pharmacists were also asked to rank the five factors that had the greatest influence on their final job selection.

Carter and Segal tested the accuracy of four decision-making models in predicting which jobs the respondents actually accepted. The "lexicographic model," which proposes individuals will accept the job that best offers their highest ranked (most important) job attribute, was found to be the best predictor of behavior in this group of pharmacists.

The perception that the job would be personally

rewarding was the most frequently reported top priority statement for both hospital and community pharmacists. The only statement rated unimportant was "provides ample supportive personnel." An important limiting feature of this study was that individuals were asked to remember which factors were important in their job selection that had occurred 10 months earlier. The jobs available at the time may have had a significant impact on their justification for acceptance of a specific position.

Koda-Kimble et al.[9] surveyed 1061 pharmacists who graduated during 1970 to 1981 from the University of California at San Francisco entry-level Pharm.D. program to identify factors important in determining practice location. Three factors rated "very important" or "somewhat important" by more than 40% of the 752 respondents were: "consistency with professional goals/like work"; "climate, scenery, lifestyle, cultural aspects"; and "family ties or commitments." Twenty-five percent of the sample had completed a residency program in hospital or clinical pharmacy, and 5% had completed a specialty fellowship. The authors did not specify differences in job attribute preferences or practice patterns of those with a postgraduate education versus those with entry-level Pharm.D. training.

In describing successful recruitment efforts at the University of Pittsburgh Department of Pharmacy and

Therapeutics, Chairman Patricia Kroboth identified two reasons applicants gave for acceptance of positions: perceived opportunity for professional growth and proximity to family or spouse's family.[10] She also felt salary was a factor for faculty candidates and it was mentioned as a consideration by those candidates who accepted positions with other employers.

Kroboth found agreement with these priorities in work by Michael Maccoby.[11] Maccoby rejects the commonly taught Hierarchy of Needs Motivation Theory of Maslow because he feels there is no evidence that satisfaction of "lower needs" (food and safety) triggers "higher needs" (self esteem and self-actualization) or that these needs can ever be satisfied.

Maccoby defines eight categories of "value drives" or patterns of perceiving, thinking, wanting and acting shared by members of a society and expressed in some form and magnitude by all people. He also identifies five types of workers according to the values that motivate them at work; experts, helpers, defenders, innovators, and self-developers. The values of the self-developer best describe the characteristics of this generation of workers, including pharmacists. Self-developers are interested in opportunities to learn, grow and feel a sense of competency and independence. These workers are rewarded by a sense of responsibility, creativity, stimulation and having a unique,

necessary, meaningful role. Self-developers feel work should not be the most important thing in life and strive to be happy both professionally and personally. Maccoby believes the new working generation of self developers will focus on balancing personal health and well-being, family and work.

Positions

Several studies have reported the first or current positions accepted by pharmacists; some have described a change in emphasis over time.

A 1983 survey of the directors of 154 ASHP-accredited residencies led to the categorization of the present positions held by 2414 residency graduates.[12] Since program completion ranged from 1962 to 1982, the author further divided the program graduates by the years since completion of residency, 1 to 2 years, 3 to 5 years, 6 to 10 years, and greater than 10 years. The positions options were:

Director of pharmacy services
Associate of assistant director of pharmacy services
Coordinator of clinical services
Staff specialist
Staff pharmacist (generalist)
College of pharmacy faculty
Pharmaceutical industry
Community pharmacy practice
Health practitioner in field other than pharmacy
Hospital administration
Other position requiring a pharmacy background
Other position completely outside pharmacy
Currently out of work force
Graduate school or other advanced study
Deceased
Unknown

Although 82% of pharmacists in the 1 to 2 year post-

residency category were practicing in hospitals, this dropped to 49% in the 10 year postresidency group. Of those out of residency training for greater than 10 years, 27% were directors and 9% assistant directors in institutions. This shift resulted in only 13% holding staff positions after 10 years of practice. The percentage employed as faculty increased from 5% in the 1 to 2 year group to 11% in the 3 to 5 year group. After 10 years, the distribution of pharmacists into other categories was more diversified; industry (6%), community (6%), hospital administration (5%), "other" (8%) and unknown (10%). The author concluded that there are opportunities for advancement in hospital pharmacy and that residency experience may contribute to career development. No comparisons to pharmacists without residency experience were made. The influence of the change over time in residency focus to a more clinical emphasis was not considered.

This trend away from a clinical practice and into administrative positions was also described by Angaran et al.[13] in a 1985 survey of 337 individuals considered "pioneer clinical pharmacists." The respondents had accepted their first position during the time from 1965 through 1974 and had changed job functions an average of 2.1 $\pm$ 1.5 times over their average 13 year career. Over time, hospital pharmacy administration, academic administration and pharmaceutical industry described the positions held by a growing portion

of this group of pharmacists with demonstrated clinical involvement during the early part of their careers. Job functions that decreased in numbers over time included academic faculty, drug information, hospital pharmacy and community pharmacy. Although 57% of the practitioners originally spent greater than 25% of their time in clinical activities, two-thirds had reduced or eliminated this clinical component over time. The number of individuals with no direct patient care responsibilities increased from 13.5% to 27.8% over the average 13 years.

In May 1984, Powell, Fanikos and Kaul, of the Brigham and Women's Hospital Pharmacy Department, surveyed 42 fellowship directors to determine the employment status of their recently (1981-1984) trained fellows.[14] According to the program directors, 50% of the fellows held college of pharmacy faculty positions, 20% were pharmacy staff specialists, and 12% worked in the pharmaceutical industry.

The Koda-Kimble et al. survey determined the first and current positions held by University of California at San Francisco entry-level Pharm.D. graduates.[9] Position categories included: community pharmacy (staff or manager/owner), hospital pharmacy (staff, clinical or manager), faculty, and clinical pharmacist in non-hospital setting. Of the respondents, 58% categorized their first job as hospital pharmacist, 28% as community pharmacist, 5% were faculty members, and 5% started out as clinical

pharmacists in nonhospital settings. Nearly two-thirds of those surveyed were currently employed in a hospital setting. "Hospital pharmacist with primarily operational duties," "hospital pharmacist with clinical and operational duties," and "hospital pharmacist with operational and management duties" accounted for 19.4%, 18.5% and 9.1% respectively of the current positions held by the 674 respondents. Since 84% of the respondents were working in California, it is difficult to assess whether the integration of distributive and clinical functions is a regional trend or if it is the norm in most institutions. "Clinical pharmacist" described the job held by only 14.1% of the pharmacists; 7.1% in hospitals, 3.1% in clinics, 1.2% in nursing homes, and 2.1% in "other" sites. Over time, these results show some movement into hospital and faculty positions and away from community settings. The authors also describe a movement away from strictly clinical positions and a greater management component to jobs over time.

In 1987, Herfindal et al.[15] compared the professional outcome of pharmacists who had completed a residency or fellowship to those who had not. This article was based on data collected in the 1982 survey of UCSF entry-level Pharm.D. graduates and referred to above.[9] Of 752 respondents, 227 (30%) had completed or were working on completing a residency or fellowship. Seventy-two percent of the pharmacists with and 51% of those without postgraduate

training accepted their first positions in hospitals. Forty-seven percent of postgraduates and 13% of nonpostgraduates started their practice in clinical positions. Distributive positions were initially held by 28% of those with and 76% of those without postgraduate training.

The authors' hypothesis that those Pharm.D. graduates with advanced training attained greater job satisfaction was not upheld by their survey results. Although differences in practice were apparent, both groups were generally satisfied with their life and profession. In analyzing positions at the time of survey, 11% of those with and 36% of those without postgraduate training had primarily distributive positions. Twenty percent of postgraduates had primarily clinical responsibilities and 13% faculty assignments compared to 11% clinical and 4% faculty positions for those with a Pharm.D. only. More postgraduates than non-postgraduates worked in hospital settings and were involved in teaching pharmacy or health related subjects.

The authors also analyzed their data for gender differences. More men than women, in both postgraduate and nonpostgraduate groups, moved into managerial positions over time. The authors attributed this difference to child rearing demands and breaks in employment of women pharmacists. Although salaries were similar in first positions, over time, women earned less than men per year of experience. Gender rather than postgraduate experience was

associated with entry into management and higher salaries.

In 1986, the American Society of Hospital Pharmacists published a report of the positions held by their 22,372 members.[16] Although women accounted for 35.4% of the members, they held only 17.9% of the department director positions, and 25.5% of the associate or assistant director positions. A partial explanation is that women represented 57.5% of the members less than 30 years old, and hence had not had time to move into management positions, but women were also underrepresented in management categories in the older age ranges. In contrast, ASHP women members held 49.4% of the staff pharmacist positions and represented 53.2% of pharmacy residents. As an indication of the influx of women into pharmacy practice, 53.1% of student ASHP members in 1986 were female.

Future Directions

Several authors have proposed long range goals for pharmacy practice that include postgraduate training. Knapp and Letendre[6] identified several trends in pharmacy education that will eventually lead to educational differentiation within the profession. The current emphasis on converting to entry level Pharm.D. programs and the attrition of B.S. pharmacists will increase the proportion of Pharm.D. level pharmacists. In 1978, one in 30 pharmacists had a Pharm.D.; this proportion increased to

one in 16 in 1987. The demand for residency and fellowship programs has risen not only because of the increasing number of Pharm.D. graduates, but also because a larger proportion of these graduates will pursue postgraduate training.

In 1986, Henri Manasse formulated several "assumptions" he felt should direct manpower planning.[17] The first assumption recognized the clinical emphasis in practice and the need for information distributors. The author also recognized the importance of computers, mechanization, and "high-tech" drugs and delivery systems in shaping the future of pharmacy practice. With a base of entry-level Pharm.D. graduates as general practitioners, Manasse's model is tiered to accommodate those with advanced training and skills acting as clinical and specialized practitioners. He recognized the need to plan the education and training required to prepare the upper tier of practitioners. Other aspects of the plan that need attention are credentialing within the profession and identifying the responsibilities and job functions of future pharmacists.

During the 1989 National Residency Preceptors Conference, Paul F. Parker discussed the impact of those with postgraduate residency training and proposed several ideas for the improvement of these programs.[18] The author stated his belief that the long range goal and basic qualification for all institutional pharmacists will be a Pharm.D. degree and a residency, or equivalent experience.

He recognized the deficiencies of practitioners and stressed the need for a nucleus of highly qualified specialists, those with advanced training, and methods for upgrading the qualifications of staff members without extensive postgraduate training.

Parker commented on the necessity of drawing more pharmacy graduates into residency programs. Of 348 applicants in the 1989 ASHP Residency Matching Program, 53% were graduates from 10 schools. These 10 schools accounted for only 13% of all pharmacy graduates leading Parker to question what was influencing such a proportion of their students to desire advanced training.

In order to develop and finance more residency programs, Parker suggested following the medical model of postgraduate training including a greater commitment and enhanced responsibilities for the residents. Rather than simply abusing the residents as inexpensive help, Parker believes more intensive training will better prepare the residents for clinical practice with enhanced physician interaction and respect.

Koda-Kimble and Herfindal have developed a scheme recognizing the levels of education and training required for future pharmacists.[19] Their plan is based on acceptance of a 6 year Pharm.D. as the only entry level degree. Although still controversial, this idea is gaining momentum and is being driven by the sophistication of developing drug

therapies and the responsibility of pharmacists in emerging clinical roles to effectively communicate with other practitioners. A "transitional year" similar to current residencies affiliated with colleges of pharmacy would be required of all pharmacists in the proposed Koda-Kimble/Herfindal career pathway. Full licensure could be attained after this postgraduate training, and the authors hypothesize that 80% of pharmacists would enter practice, 7% would seek fellowship training to become clinical scientists, and 13% would enter specialty residencies. Once established, specialty practice areas would be recognized by certification and these practitioners would meet the demands of the changing health care environment.

Enrollment data indicate women accounted for 61.6% of students in the entry level pharmacy degree programs offered by the 74 pharmacy schools in the U.S. during 1989-90.[20] Female enrollment has increased steadily from 47.4% in 1980 to the current level. The accompanying increase in female practitioners will place some demands on the profession to accommodate more flexible schedules, address childcare issues and to maintain adequate numbers of working pharmacists.

One of the "ten new directions of the 1990s" identified in Naisbitt and Aburdene's Megatrends 2000 is the "decade of women in leadership."[21] In this section, the authors discuss Michael Maccoby's New Age "self-developer" categorization of

workers[11] and relate the values of these workers to tendencies often attributed to women. They feel the desire to balance work with family and other priorities is generational rather that gender specific. Megatrends 2000 predicts the recruitment of qualified workers will require attention to a new set of values to address the needs of these "self-developers."

If the 1990s are to be the "decade of women in leadership," female pharmacists must increase their representation in managerial positions and involvement in professional organizations. Nancy A. Nickman's report on the number of women holding leadership positions in the American Society of Hospital Pharmacists (ASHP) illustrates the lack of female role models and stresses the need for involvement at all levels.[22] In 1985-86, 37% of ASHP active members were women, but only 24% of the appointed and elected ASHP officers were female. Pharmacists with postgraduate training should act as role models and mentors for pharmacists of both genders as many are being sought for highly visible positions with the ability to influence practice standards.

Objective of this Study

The objective of this study was to survey the 1990 graduates of ASHP-accredited clinical and specialized residencies, and fellowships offered by members of the American College of Clinical Pharmacy to ascertain what jobs

or positions they have taken and the motivating factors of that acceptance. Recognized for their potential contributions to pharmacy practice and advancement of the clinical aspects of the profession, pharmacists with postgraduate training are actively recruited through national advertisements and personnel placement services. By identifying the factors that determined an applicant's acceptance of a particular job, employers will be able to more effectively recruit these pharmacists to their institution. The positions accepted by the surveyed group should indicate the current utilization of skills acquired during training, and a better understanding of competencies and work preferences can be made.

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CHAPTER III

METHODOLOGY

Sample Selection

The American Society of Hospital Pharmacists (ASHP) publishes a list of the individuals completing ASHP accredited residencies yearly. The list printed in April 1990 included the names and residency addresses of 130 clinical residents and 54 specialized residents, excluding those completing residencies in pharmacy administration or those affiliated with military appointments. These 184 individuals comprised the group of residents selected to receive the survey. The general residents were not included in the survey to limit group size and to focus on those with clinical interests.

Because there is no accrediting body for fellowships, a comprehensive list of fellows is not available. The American College of Clinical Pharmacy (ACCP) publishes an annual directory of the residency and fellowship programs offered by their members. As part of the program description, the number of positions is listed. Surveys were sent to 86 preceptors representing 111 fellowship positions listed in the 1990 directory. Because the names of fellows were not

known, the preceptors were sent one survey for each position listed and were asked to return excess surveys.

Survey Development

The survey instrument was developed during April 1990. Part I was designed to collect biographical information about the respondents. The type of program completed in 1990, (clinical residency, specialized residency or fellowship) was the major categorization for comparisons between groups. A breakdown of how residency/fellowship time was spent was requested to assess the emphasis of the programs. Geographic mobility and relocation history were addressed in several questions to regionalize the responses. The survey also requested college degrees earned and information about prior work as pharmacists. Gender, marital status and the existence of other dependents was also ascertained. The final question of Part I asked the respondents to indicate their plans upon completion of the residency or fellowship. Most were expected to have found or to be looking for work, but other options included further education and being out of the work force for personal reasons.

Part II of the survey directed respondents to rate the importance of 25 job characteristics in the selection of the respondent's ideal practice site. A five point Likert scale with 1 equal to "very unimportant" and 5 representing "very

important" was used. The job characteristics were adapted from those used in surveys by Henderson et al.,[1] Carter and Segal,[2] and Koda-Kimble et al.[3]

Part III of the survey was developed to ascertain the type of positions accepted by those who had made a decision at the time of the survey. A list of 17 possible position titles was offered respondents, plus an additional choice of "other." The development of the selections was influenced by surveys of Ray,[4] Powell et al.,[5] and Koda-Kimble et al.[3] Respondents were also asked to identify and rank the five job characteristics from Part II that most heavily influenced their position acceptance.

Part III also included categorization of expected annual salary and whether the position would be full or part time. To aid in focusing recruitment efforts, respondents were asked the number of interviews completed before acceptance of a position and also how they found out about the position.

Distribution of Survey

Each potential resident respondent was sent a personally addressed cover letter describing the purpose of the survey, the survey instrument, and a preaddressed and stamped return envelope. Fellowship directors were sent a packet containing a cover letter asking them to distribute the survey to those fellows completing their program in

1990, and the number of surveys and return envelopes to match the number of positions they listed in the ACCP directory. All return envelopes were stamped with an identification number in order to track responses. A second, reminder letter and survey was mailed to the nonresponders during June 1990. All surveys were mailed via the U.S. Postal Service to the residents' and fellows' practice sites.

Data Analysis

Data analysis was performed by the Biostatistics Department of the University of Utah Computer Center using the SPSS-X statistical package. Each variable was first evaluated using simple descriptive statistics and frequency distributions. The Kruskal-Wallis one way analysis of variance test was used in evaluating the responses to the rating of the 25 job characteristics. Conover believes the Kruskal-Wallis test is usually more powerful than the median test.[6] Using Bonferroni's adjustment for the number of "like" tests, a significance level of $p < 0.002$ was established.

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CHAPTER IV

RESULTS

Survey Response

Returned surveys were accounted for by the identification number on the preaddressed return envelope. As shown in Table 1, the survey question identifying the respondents' program indicated that 107 clinical and 50 specialized residents completed surveys.

Twenty-five surveys were returned by fellowship preceptors indicating they did not have fellows graduating during 1990. The actual number of fellows in the programs offered by American College of Clinical Pharmacy (ACCP) members is not known. Subtracting 25 from the 112 surveys sent to preceptors results in a potential 87 fellowship respondents. Thirty-eight respondents classified themselves as fellows giving a 43% response rate in this group if all of the potential 87 positions were filled.

Demographics of Respondents

The residents surveyed were predominantly female as indicated in Table 2. Females accounted for 66.7% of clinical residents and 74% of specialized residents. This representation exceeds the 61.6% female enrollment during 1989-90 in colleges of pharmacy.[1]

Table 1

Survey Response

Category	Mailed n	Survey Response n (%)
Clinical Residency	130	107 (82.3)
Specialized Residency	54	50 (92.6)
Fellowship	87 *	38 (43.7)
Total	271 *	195 (72.0)

* This number reflects the 25 surveys returned by preceptors for lack of 1990 graduates.

Table 2

Demographics: Gender

	Clinical Residents n (%)	Specialized Residents n (%)	Fellows n (%)
Female	70 (66.7)	37 (74.0)	21 (55.3)
Male	35 (33.3)	13 (26.0)	17 (44.7)
Total	105	50	38

Table 3 shows respondents' reported marital status by program. Approximately 70% of all residents and 45% of the fellows were single. As a group, 53.8% of male respondents were single, compared to 72.4% of female respondents. Table 4 shows that less than 10% of respondents had nonspousal dependents.

Residence

Table 5 shows the regions of residence of the clinical resident group during various phases of their career. From looking at the distribution and individual surveys, there does not appear to be much interregional movement. Roughly 28% had lived in the Pacific region during all phases of their education. Another 22% lived in the East North Central region until their residency, when there appears to have been a shift to the East South Central and Mid-Atlantic areas. Fifty percent of the clinical residents indicated they had moved once or twice during their post-high school education, and 34% had moved 3 to 4 times. Although the residents had moved, it appears many stayed close to home.

The regions of residence for the specialized residents appear in Table 6. Compared to the clinical residents, more of the specialized residents were from the eastern states and only 11% were from the Pacific region. There was a more even distribution of these students until their residency when 30% congregated in the South Atlantic region and

Table 3

Demographics: Marital Status

	Clinical Residents n (%)	Specialized Residents n (%)	Fellows n (%)
Single	75 (72.1)	35 (70.0)	17 (44.7)
Married	29 (27.9)	13 (26.0)	21 (55.3)
Other	0 (0.0)	2 (4.0)	0 (0.0)

Table 4

Demographics: Non-Spousal Dependents

	Clinical Residents (n=106)	Specialized Residents (n=50)	Fellows (n=36)
Yes	9.4%	8.0%	11.1%
No	90.6%	92.0%	88.9%

Table 5

Clinical Residents' Residence

Region[a]	Home	College/BS	Pharm.D.	RES[b]
Out of U.S.A.	3.1	0.0	0.0	0.0
New England	2.1	3.3	0.0	1.0
Mid-Atlantic	2.1	1.1	2.9	9.5
South Atlantic	12.5	13.0	16.5	12.4
East North Central	21.9	22.8	23.3	16.2
East South Central	9.4	7.6	7.8	13.3
West North Central	14.6	16.3	14.6	6.7
West South Central	0.0	0.0	0.0	0.0
Mountain	5.2	7.6	6.8	12.4
Pacific	29.2	28.3	28.2	28.6

Percent respondents living in each ASHP designated region during specified phases of life.

[a]States in ASHP-designated regions:
New England: CT, MA, ME, NH, RI, VT
Mid-Atlantic: NJ, NY, PA
South Atlantic: DE, DC, FL, GA, MD, NC, SC, VA, WV
East North Central: IL, IN, MI, OH, WI
East South Central: AL, KY, MS, TN
West North Central: IA, KS, MN, MO, NE, ND, SD
West South Central: AR, LA, OK. TX
Mountain: AZ, CO, ID, MT, NV, NM, UT, WY
Pacific: AK, CA, HI, OR, WA

[b] RES = Residency

Table 6

Specialized Residents' Residence

Region[c]	Home	College/BS	Pharm.D.	RES[d]
Out of U.S.A.	4.3	4.5	2.0	0.0
New England	4.3	4.5	0.0	2.0
Mid-Atlantic	13.0	13.6	6.1	4.0
South Atlantic	19.6	25.0	30.6	30.0
East North Central	15.2	11.4	12.2	8.0
East South Central	6.5	4.5	8.2	10.0
West North Central	10.9	9.1	8.2	4.0
West South Central	6.5	6.8	14.3	20.0
Mountain	8.7	9.1	6.1	8.0
Pacific	10.9	11.4	12.2	14.0

Percent respondents living in each ASHP designated region during specified phases of life.

[c] States in ASHP-designated regions:
New England: CT, MA, ME, NH, RI, VT
Mid-Atlantic: NJ, NY, PA
South Atlantic: DE, DC, FL, GA, MD, NC, SC, VA, WV
East North Central: IL, IN, MI, OH, WI
East South Central: AL, KY, MS, TN
West North Central: IA, KS, MN, MO, NE, ND, SD
West South Central: AR, LA, OK. TX
Mountain: AZ, CO, ID, MT, NV, NM, UT, WY
Pacific: AK, CA, HI, OR, WA

[d] RES = Residency

another 20% were in the West South Central region. As a group the specialized residents had moved from one city to another more often than the clinical residents; 44% had moved 3 or 4 times and 12% relocated 5 to 10 times since high school.

As shown in Table 7, 15% of the responding fellows were originally from outside of the United States. The East North Central and West North Central regions had 21% and 18% of the fellowships, respectively. Only 5% of the fellowships were in the Pacific area. Thirty-eight percent of the fellows had relocated once or twice, 43% had moved 3 or 4 times, and 19% had moved 5 to 10 times during their post-high school education.

Education and Work History

Forty-one percent of clinical residents, 34% of specialized residents and 31% of fellows had received a non-pharmacy degree prior to entering a B.S. or Pharm.D. program. Ninety-eight percent of all respondents had a Pharm.D. degree. Table 8 gives the breakdown of entry-level versus postbaccalaureate Pharm.D. degrees for each program.

Only 32% of all respondents had worked as a pharmacist before entering the program from which they would be graduating in 1990. Fifty percent of the fellows had worked as a pharmacist; 58% had worked for 1 to 2 years and 26% had worked for 3 to 5 years. In contrast, only 12% of the

Table 7

Fellows' Residence

Region[e]	Home	College/BS	Pharm.D.	RES[f]	FEL[g]
Out of U.S.A.	14.7	14.7	0.0	7.7	0.0
New England	5.9	11.8	2.6	7.7	13.2
Mid-Atlantic	8.8	5.9	7.9	11.5	10.5
South Atlantic	8.8	11.8	23.7	7.7	13.2
East North Central	32.4	20.6	21.1	23.1	21.1
East South Central	0.0	0.0	0.0	3.8	5.3
West North Central	8.8	14.7	13.2	7.7	18.4
West South Central	0.0	0.0	13.2	7.7	7.9
Mountain	8.8	14.7	5.3	11.5	5.3
Pacific	11.8	5.9	13.2	11.5	5.3

Percent respondents living in each ASHP designated region during specified phase of life.

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[e] States in ASHP-designated regions:
New England: CT, MA, ME, NH, RI, VT
Mid-Atlantic: NJ, NY, PA
South Atlantic: DE, DC, FL, GA, MD, NC, SC, VA, WV
East North Central: IL, IN, MI, OH, WI
East South Central: AL, KY, MS, TN
West North Central: IA, KS, MN, MO, NE, ND, SD
West South Central: AR, LA, OK. TX
Mountain: AZ, CO, ID, MT, NV, NM, UT, WY
Pacific: AK, CA, HI, OR, WA

[f] RES = Residency

[g] FEL = Fellowship

Table 8

Pharm.D. Degrees

	Clinical Residents n (%)	Specialized Residents n (%)	Fellows n (%)
Entry-Level	64 (59.8)	23 (46.0)	12 (31.6)
Post-Baccalaureate	42 (39.3)	26 (52.0)	25 (65.8)
No Pharm.D.	1 (0.9)	1 (2.0)	1 (2.6)
Total	107 (99.0)	50 (98.0)	38 (97.4)

clinical residents had worked as a pharmacist before entering their residency. Seventy two percent of those who had worked as a pharmacist listed "hospital" as the site; another 18% listed "other." Only 10% had experience in community pharmacy.

Activities During Postgraduate Training

The respondents were asked how their time had been spent while in their postgraduate program; 190 of the total 195 respondents appropriately answered this question. The remaining five either did not answer or their time estimates did not add up to 100%.

Seventy-five percent of clinical and 74% of specialized residents spent more than 50% of their time in patient specific clinical activities. In contrast, none of the responding fellows spent more than 50% of their time, and 81% of fellows spent less than 25% of their fellowship time in patient-specific clinical activities.

Although 34% of all respondents did have some formal classwork, it was only a minor component of their programs. Twenty-three percent of clinical residents and 26% of specialized residents spent between 1% and 10% of fellowship time in class. Fellows were more likely to have formal classes; 10.8% spent 11 - 25% and 48.6% spent 1 - 10% of their fellowship time in class.

Only 7.4% of the residents and fellows surveyed had no teaching responsibilities; 68.4% spent 1 - 10% of their time

and another 17.9% had 11 - 25% of their time devoted to teaching.

Since the amount of time spent on research activities during fellowships is debated, it is interesting to note that 27% of fellows spent between 26% and 50% of their time in research related activities, 49% of fellows spent between 51 and 75% of their time and only 19% reported spending greater than 75% of their time on research activities. The Guidelines for Clinical Fellowship Training Programs, printed in the directory from ACCP, states a minimum of 75% of fellowship training time should be committed to research.[2] Clearly, most of the fellowships are not perceived by participants to be meeting this commitment. None of the residency respondents had research responsibilities that consumed more than 50% of their time. Twenty-three percent devoted 11 - 25% of their time, and 60.8% spent 1 - 10% of their residency doing research.

The administrative component of both residencies and fellowships was also small. About 43% of respondents spent 1 - 10% of their time and another 6% spent between 11 - 25% of their training time on administrative duties.

Ninety-five percent of the fellows, and 70% of the specialized residents had no distributive responsibilities. On the other hand, 48% of clinical residents spent 1 - 10% of their time and 18% spent 11 - 25% of their time performing distributive functions.

Plans upon Completion of Program

At the time of the survey, 59% of all respondents had accepted a job, and 19% had decided to pursue further education in the form of graduate school, a residency or a fellowship. As indicated in Table 9, 76.3% of those who were completing a fellowship had accepted a job and another 21.1% were looking for work in pharmacy. Ten of the clinical residents were going to enter another residency and 12 planned to start a fellowship. Twelve of the specialized residency graduates had committed to begin a fellowship.

Table 10 shows the distribution of responses to the geographic mobility question. When asked to select one of the 5 options describing their geographic mobility, nearly half of the respondents indicated an ability to relocate but with geographic preferences. Fifty-nine percent of unmarried and 29% of married respondents indicated geographic preference as most descriptive of willingness to relocate. Twenty-six percent of the fellows were willing to relocate without restrictions compared to 10% of the clinical residents and 12% of the specialized residents. Twenty-one percent of all respondents indicated another person's ability to find work or satisfaction with a new area were most important in describing mobility. Twenty-eight percent of the married respondents selected dependence on another person finding work as most reflective of their desire to relocate.

Table 9

Plans upon Completion of Postgraduate Program

Plans	Clinical Resident n (%)	Specialized Resident n (%)	Fellow n (%)
Have Accepted Job	56 (52.3)	30 (60.0)	29 (76.3)
Looking for Pharmacy Position	25 (23.4)	7 (14.0)	8 (21.1)
Looking for Nonpharmacy Job	1 (0.9)	0 (0.0)	0 (0.0)
Graduate Degree Program	2 (1.9)	1 (2.0)	0 (0.0)
Residency	10 (9.3)	0 (0.0)	0 (0.0)
Fellowship	12 (11.2)	12 (24.0)	0 (0.0)
Out of Work Force	1 (0.9)	0 (0.0)	1 (2.6)
Total	107	50	38

Table 10

Geographic Mobility

Statement	Clinical Resident n (%)	Specialized Resident n (%)	Fellow n (%)
Able to relocate without restrictions.	11 (10.3)	6 (12.0)	10 (26.3)
Able to relocate but have geographic preferences.	56 (52.3)	24 (48.0)	14 (36.8)
Ability to relocate is dependent on another person finding work.	12 (11.2)	7 (14.0)	8 (21.1)
Ability to relocate is dependent on another person's satisfaction with new location.	8 (7.5)	4 (8.0)	3 (7.9)
Restricted to geographic area due to family ties/commitments.	20 (18.7)	9 (18.0)	3 (7.9)
Total	107	50	38

Rating Characteristics of Ideal Practice Site

The importance of 25 job characteristics in selecting an ideal practice site was assessed in Part II of the survey. The rating of each characteristic by the three categories of respondents (clinical resident, specialized resident, and fellow) is shown by frequency histograms in Figures 1 through 25. The five points of the Likert scale are on the x-axis; 1 was defined as "very unimportant" and 5 as "very important." The percent of each group responding similarly forms the y-axis. Most features were judged to be important or very important by the vast majority of respondents. Prestige, geographic location, compatibility with family ties, lack of interference in personal life, provision of a safe environment, ability to influence policies, and low stress levels were the job factors respondents expressed more ambivalence in rating.

Table 11 lists the job characteristics and the mean rank of each job factor according to the Kruskal-Wallis one way ANOVA analysis. Rankings were created by rank ordering the results of the rating summary for each respondent type and characteristic. Higher mean ranks indicate the respondents' perception of that factor as having greater importance in selecting an ideal position. Because of the number of "like" tests, the statistically significant p value for this data is 0.002. Only three characteristics, patient interaction, opportunity for creativity and

Ideal Practice Site

.. is interesting

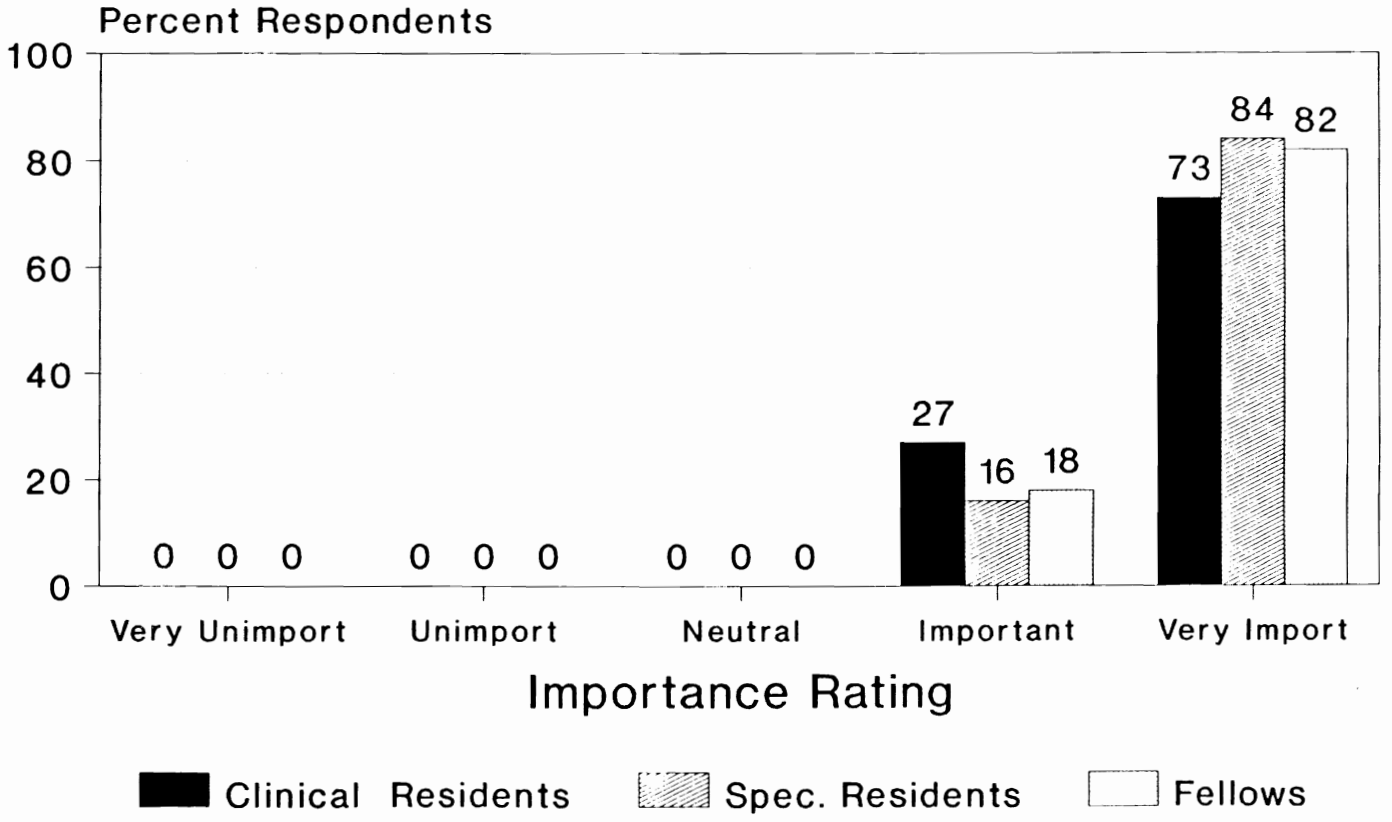

Figure 1. Rating: Interesting

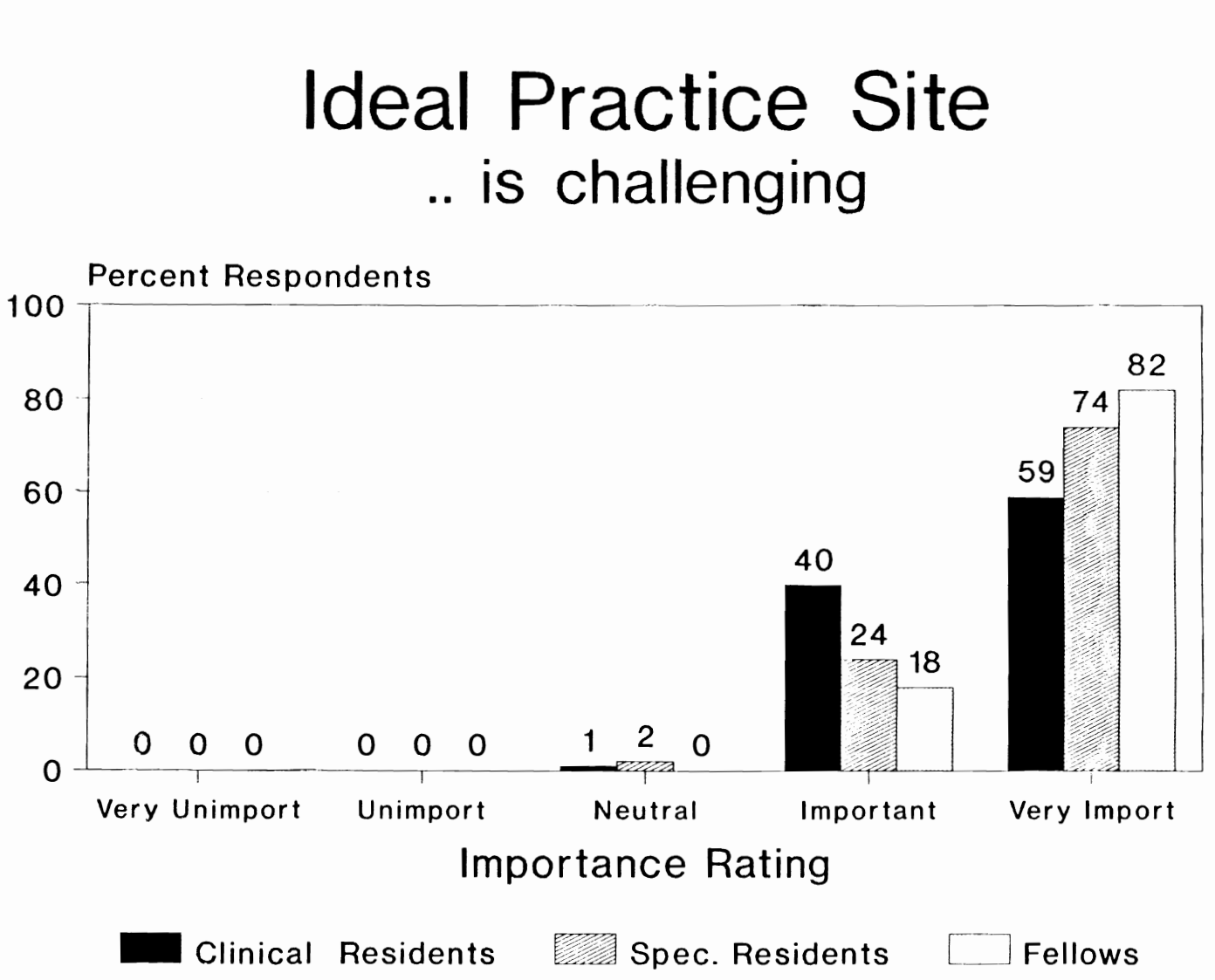

Figure 2. Rating: Challenging

Ideal Practice Site

.. is prestigious

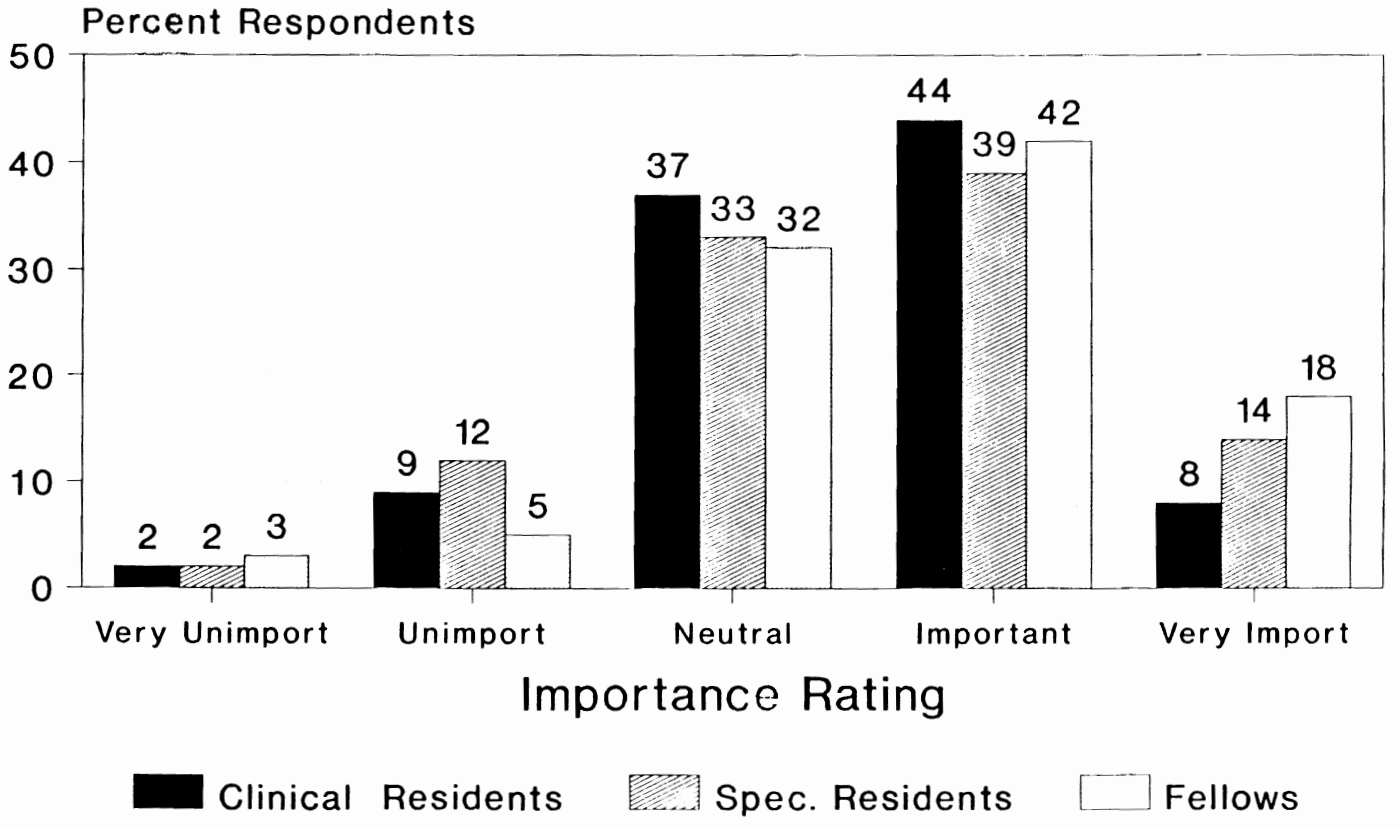

Figure 3. Rating: Prestigious

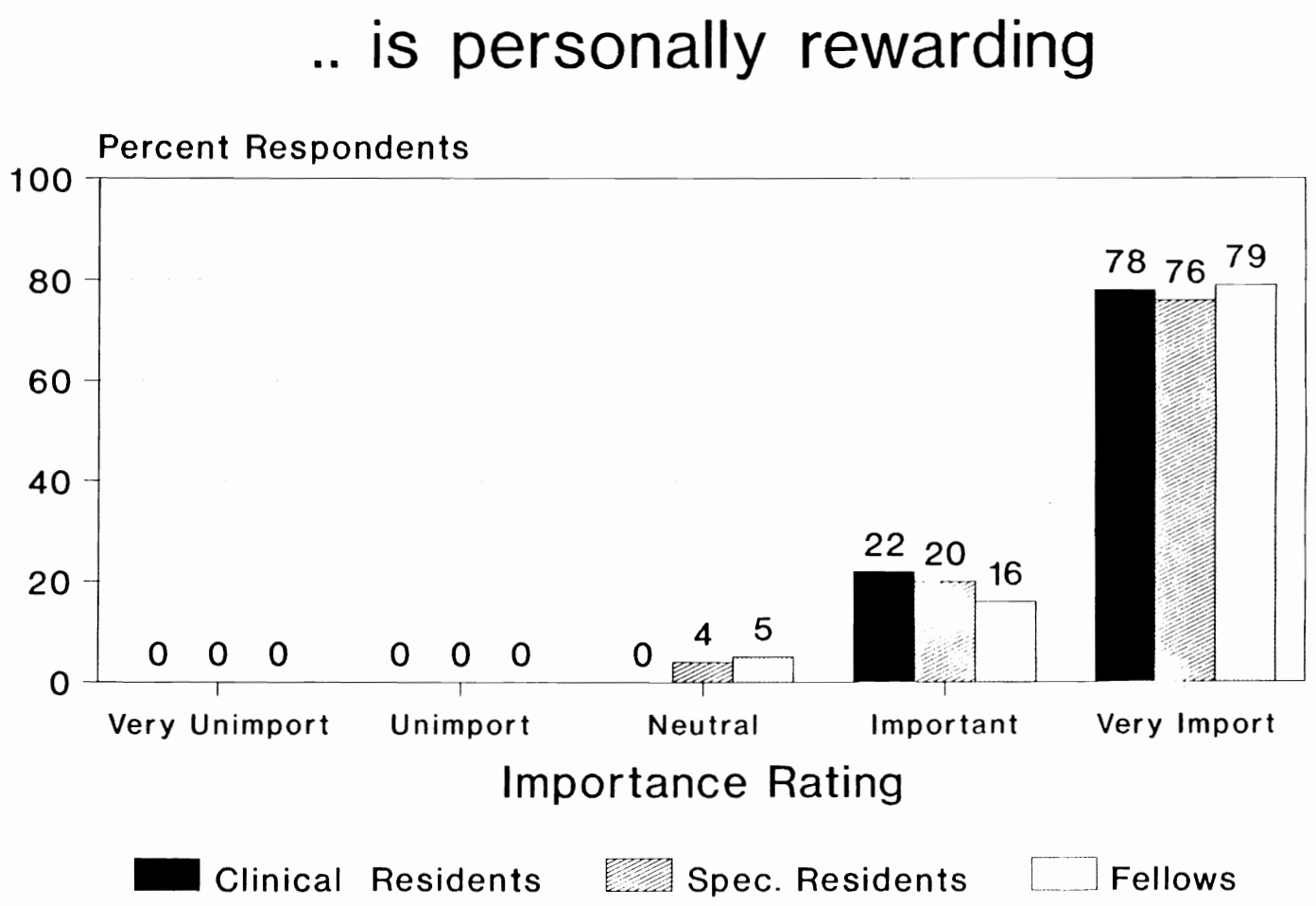

Figure 4. Rating: Rewarding

Ideal Practice Site

.. has opportunity for advancement

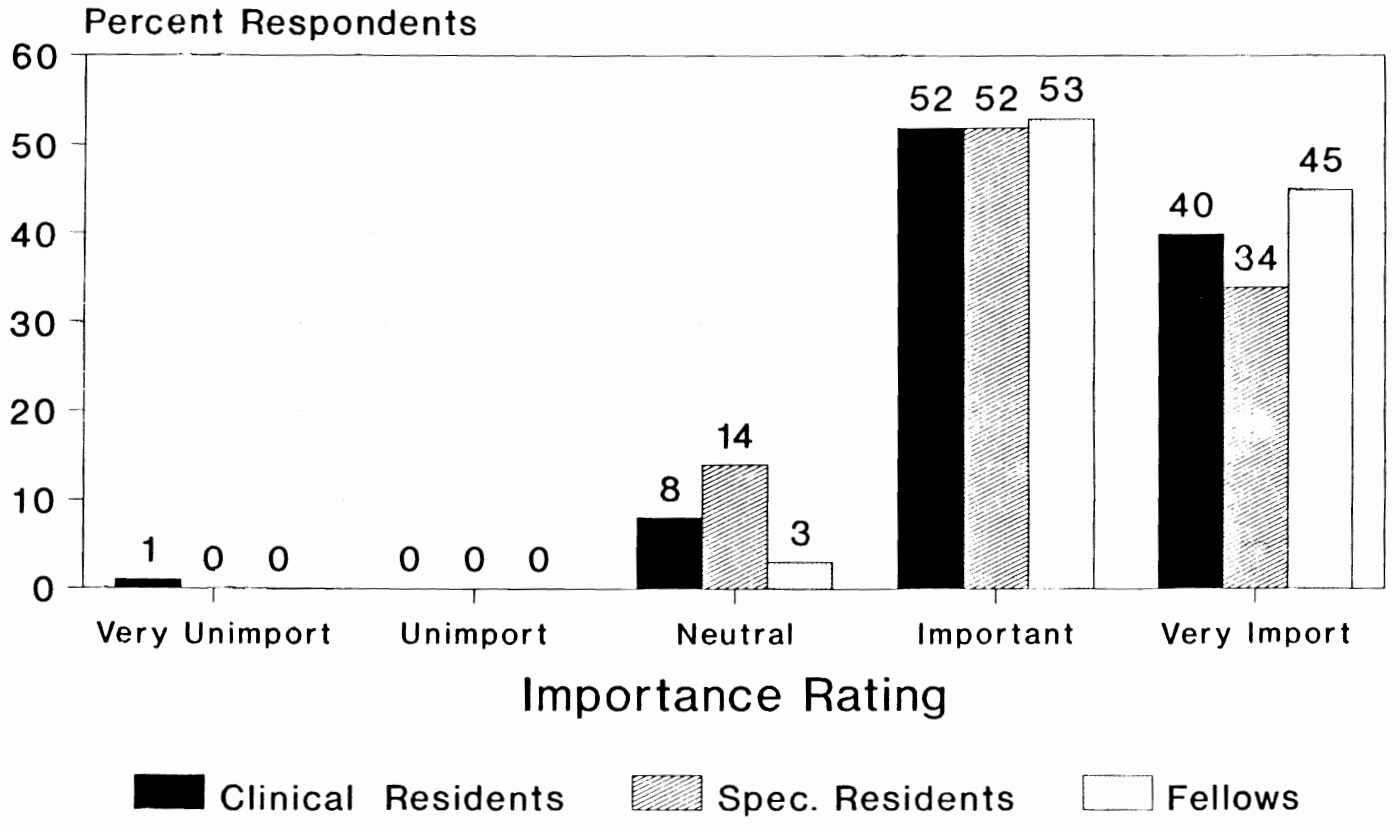

Figure 5. Rating: Advancement

Ideal Practice Site

.. is beneficial to society

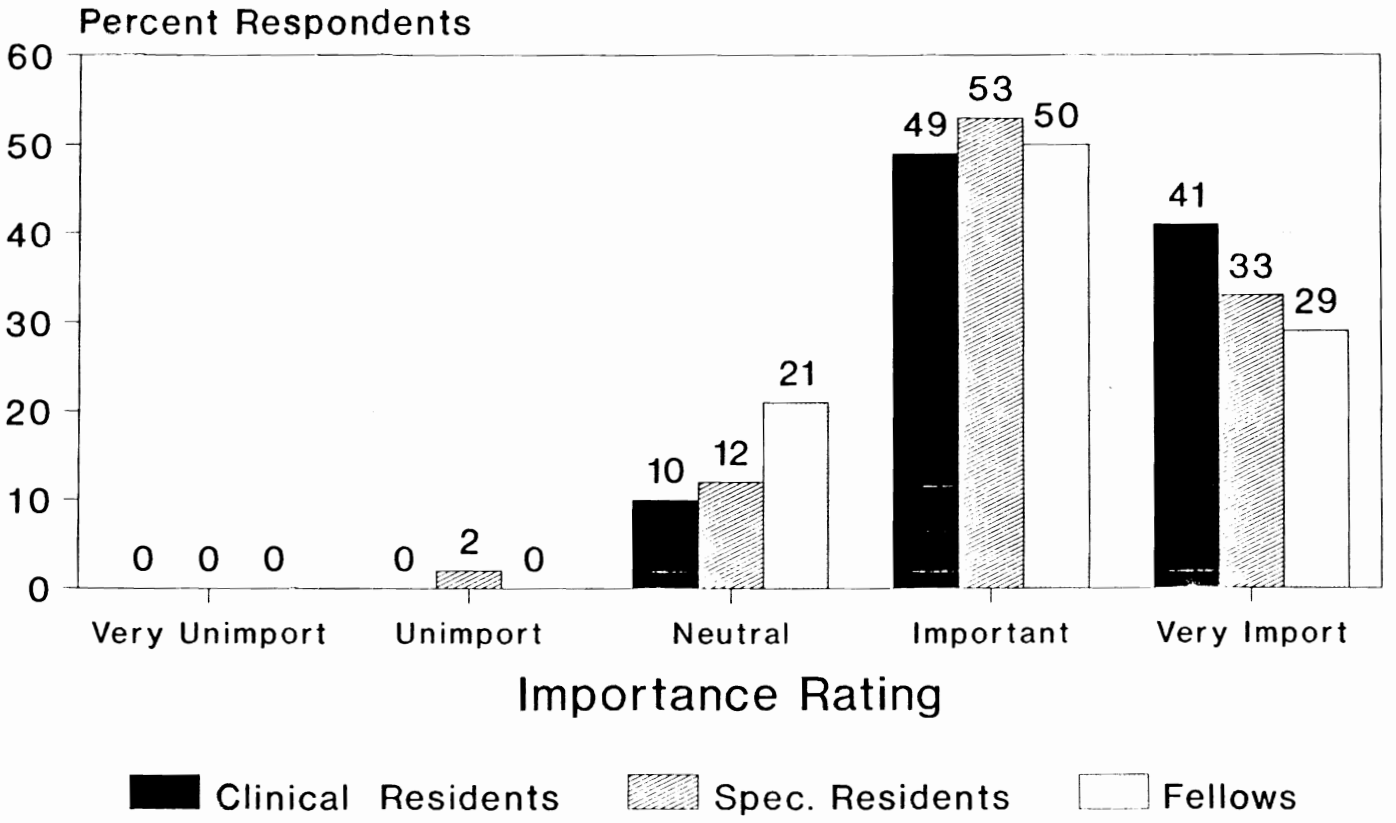

Figure 6. Rating: Benefits society

Ideal Practice Site

.. provides financial security

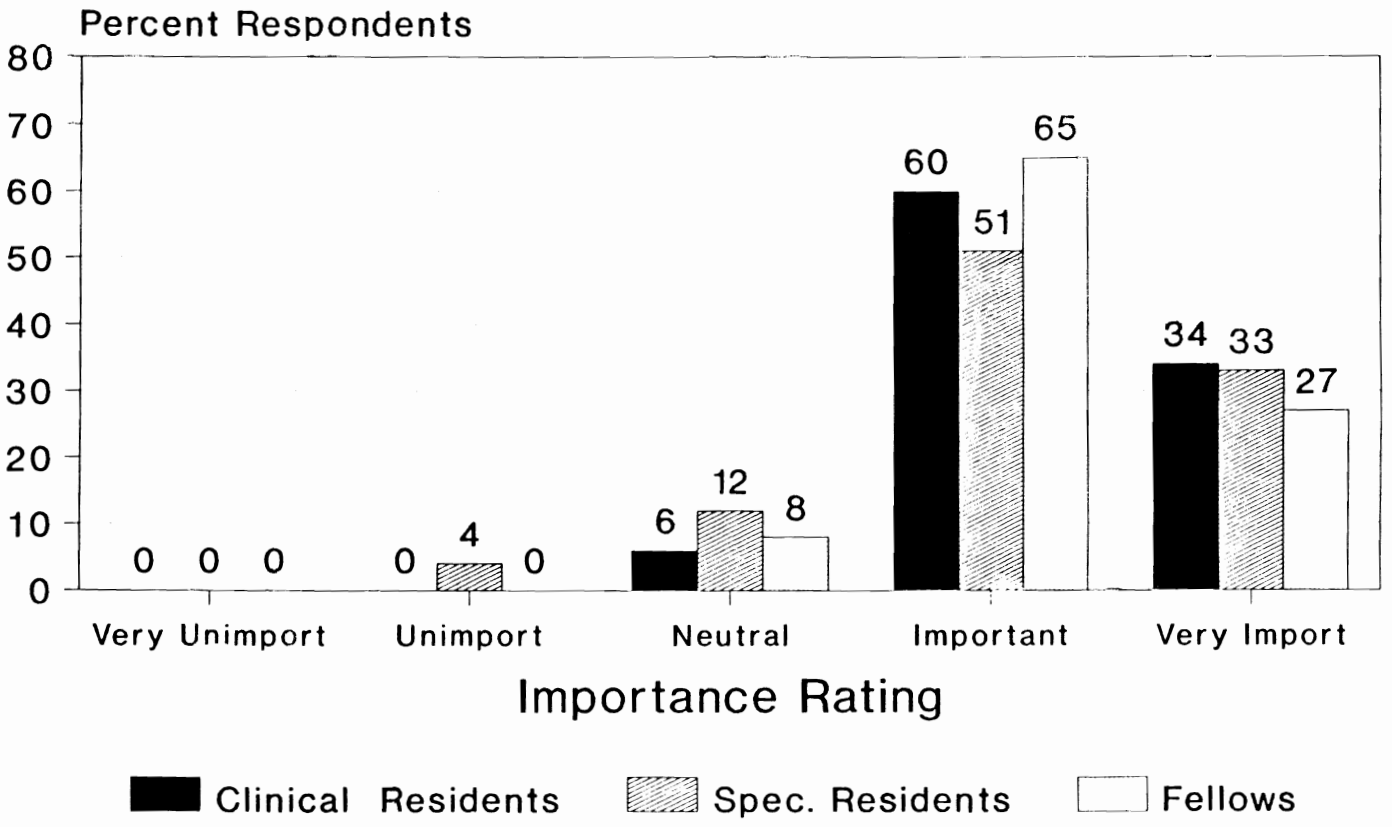

Figure 7. Rating: Financial security

Ideal Practice Site

.. use professional knowledge

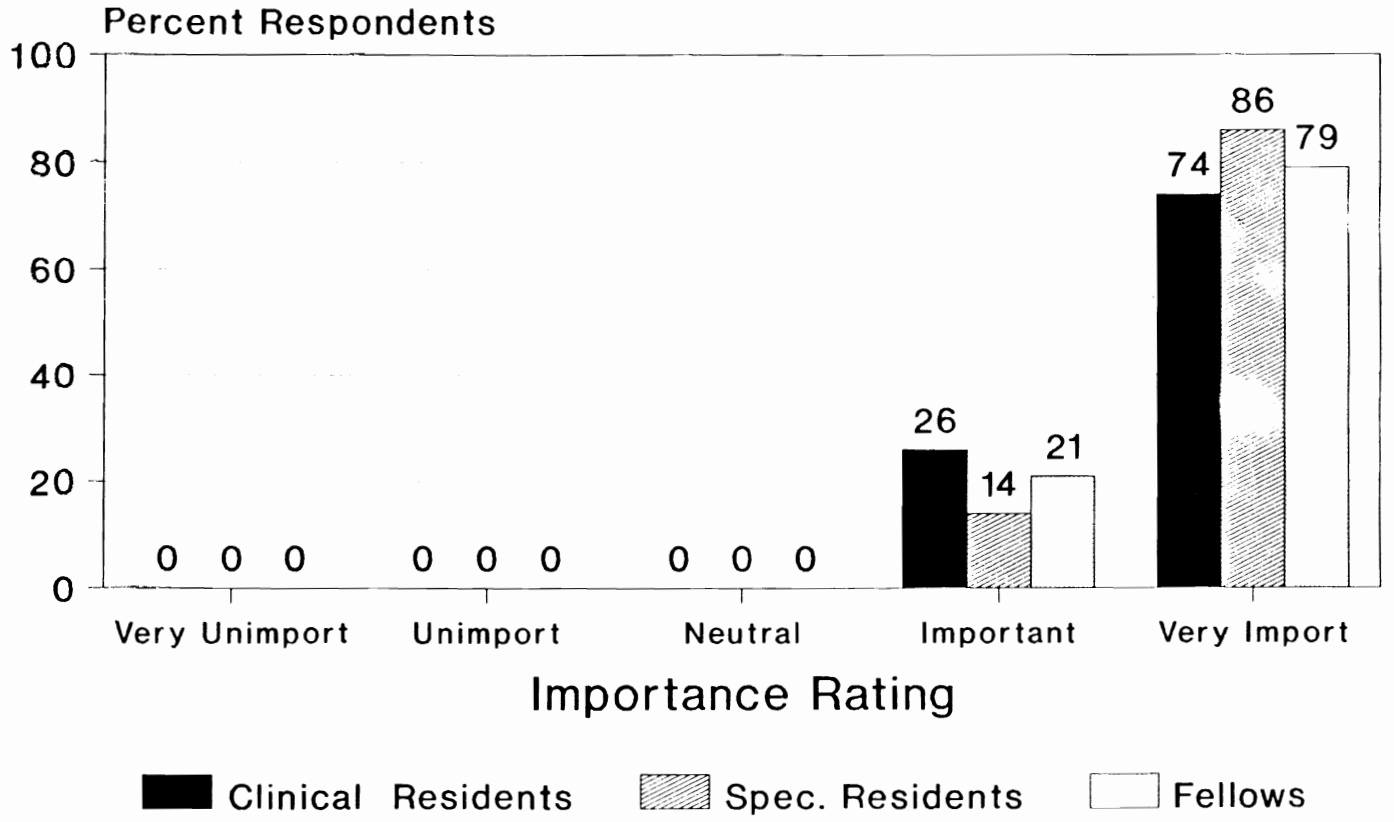

Figure 8. Rating: Use knowledge

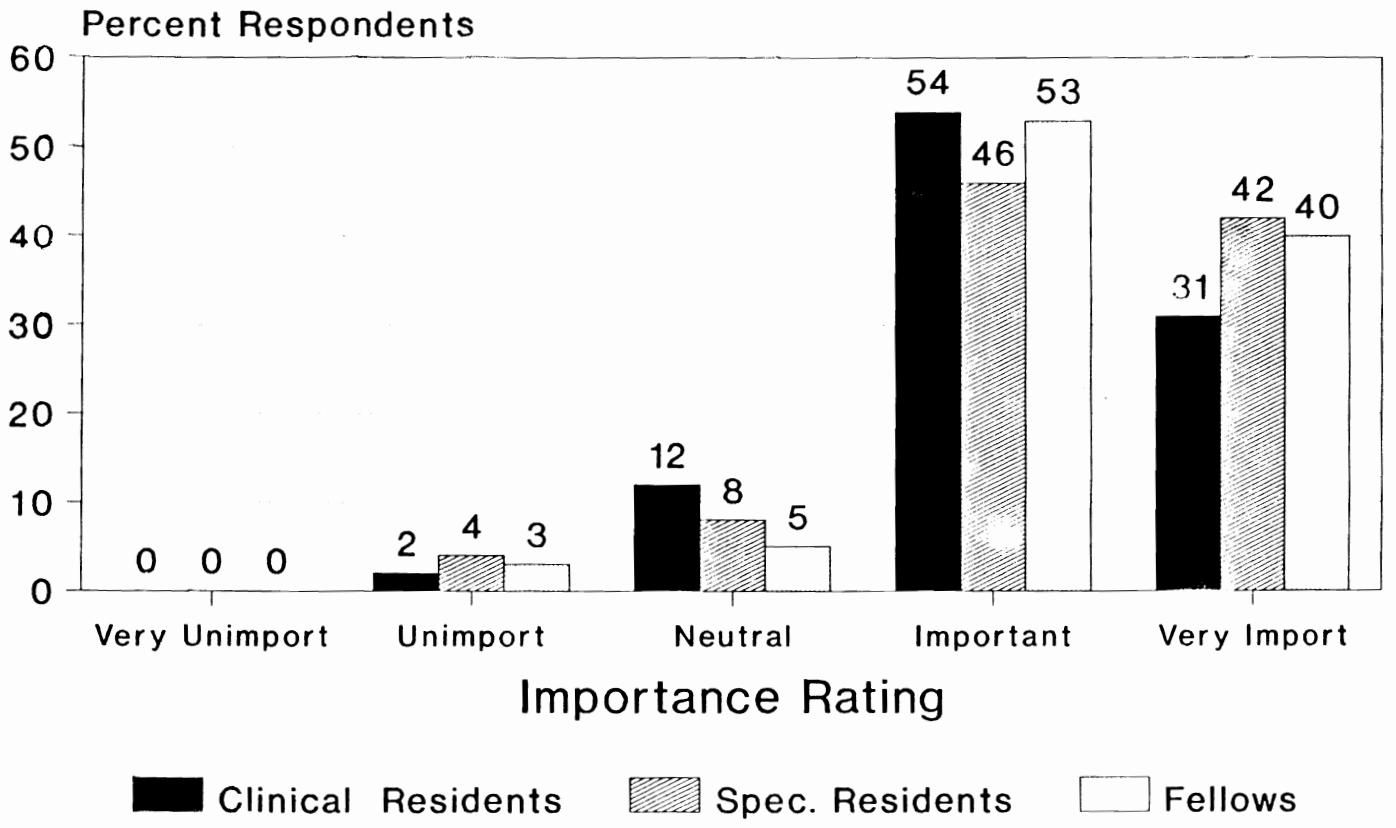

Figure 9. Rating: Autonomy

Ideal Practice Site

.. is financially rewarding

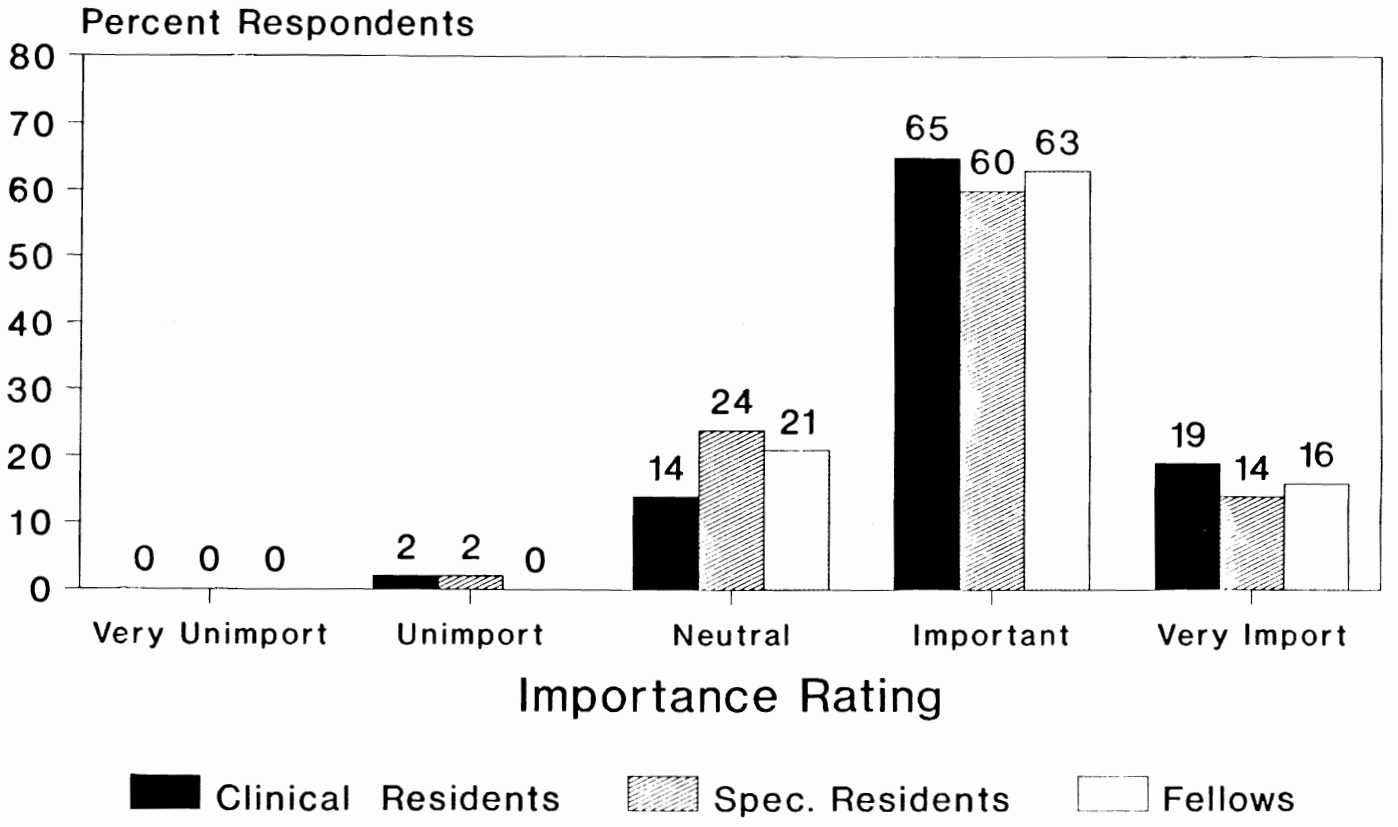

Figure 10. Rating: Financially rewarding

Ideal Practice Site

.. is consistent with professional goals

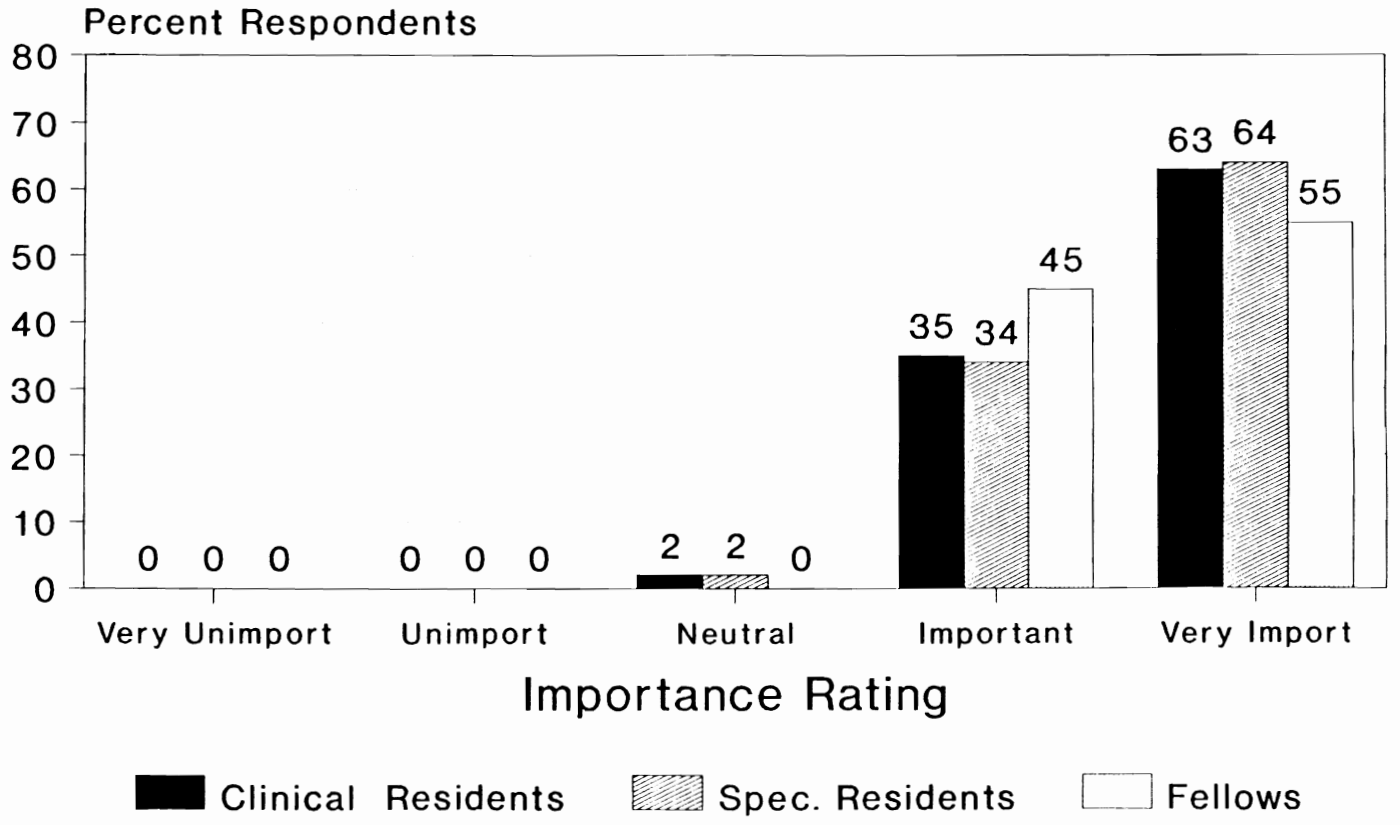

Figure 11. Rating: Professional goals

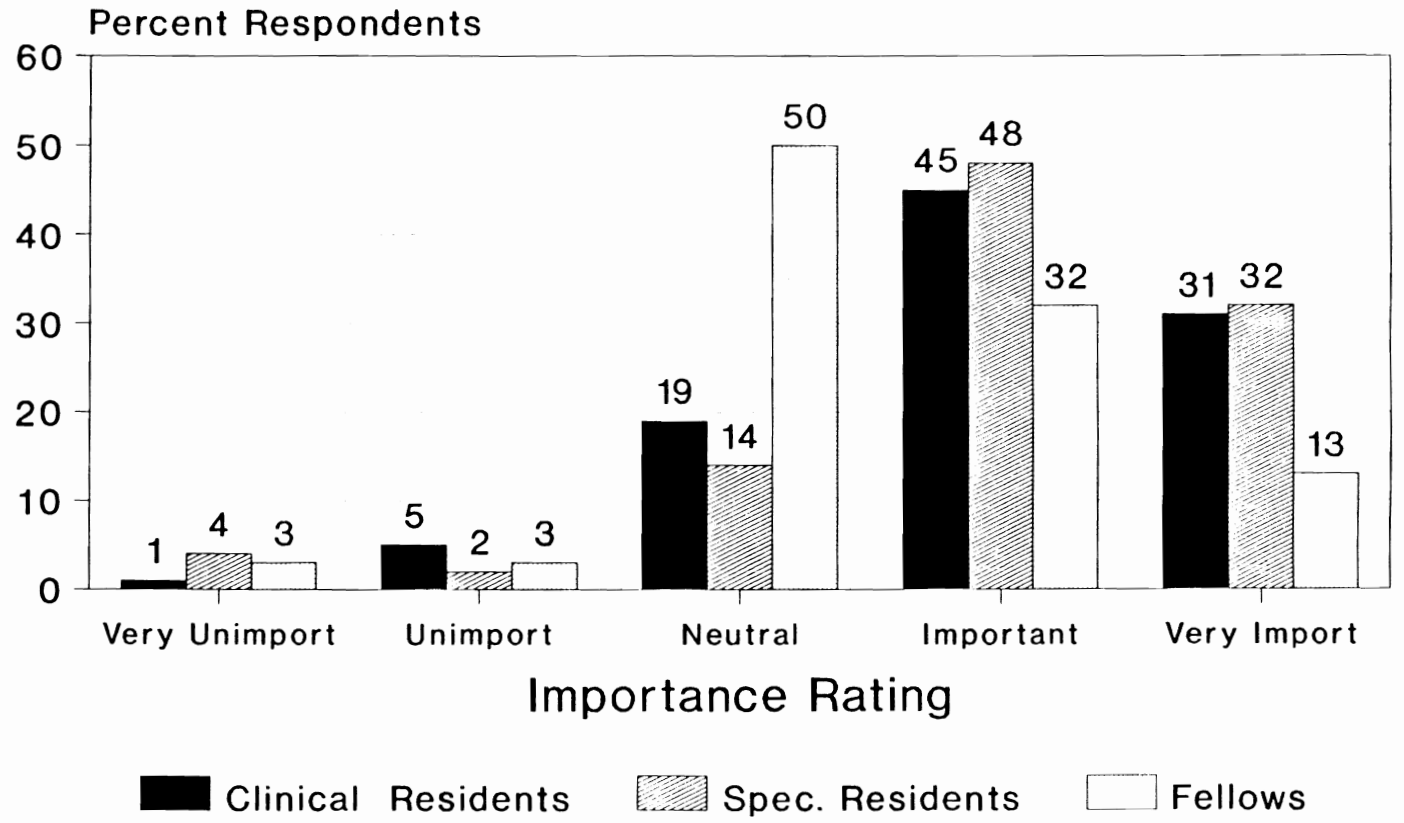

Figure 12. Rating: Geographic location

Ideal Practice Site

.. is compatible with family ties

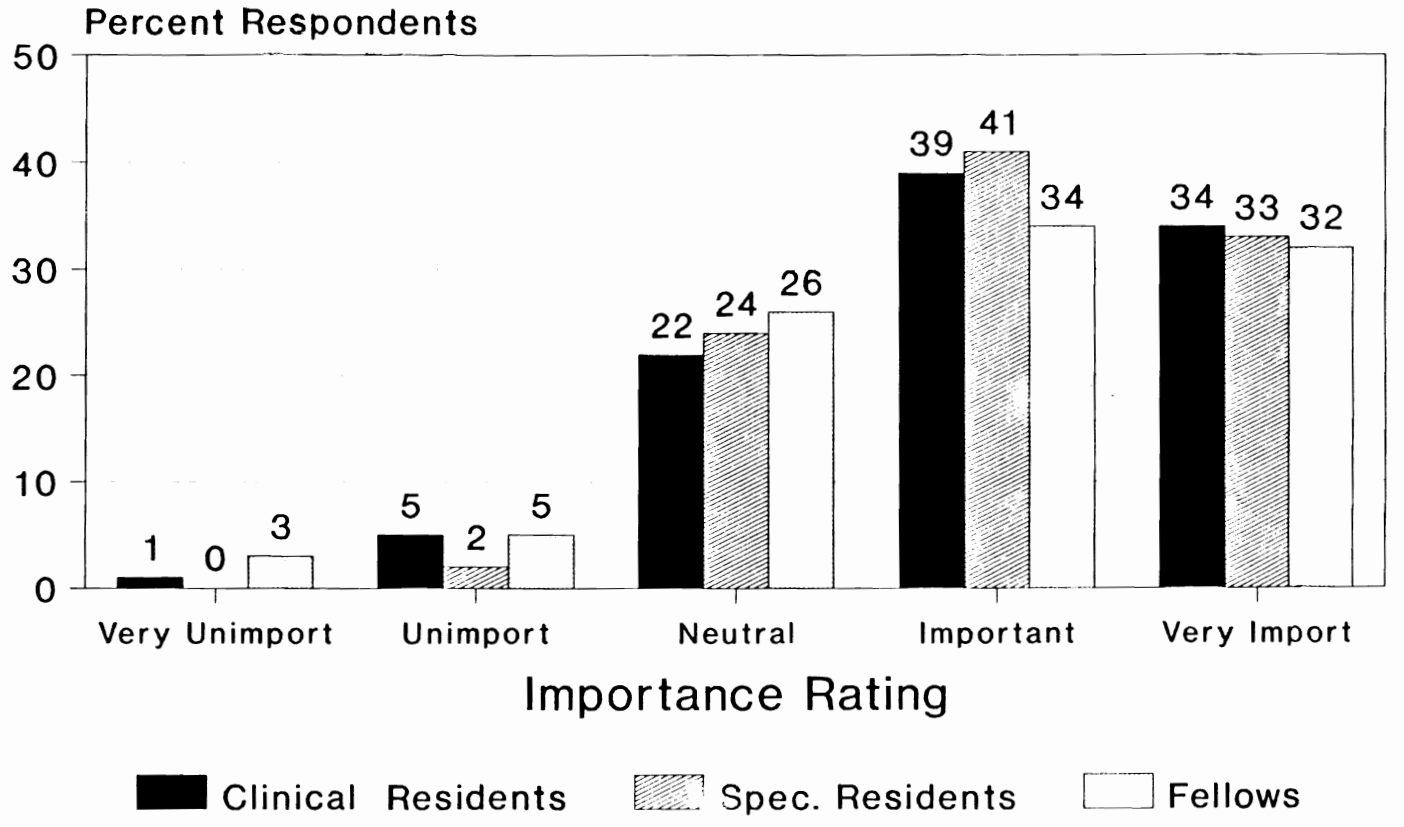

Figure 13. Rating: Family commitments

Ideal Practice Site

.. has interaction with patients

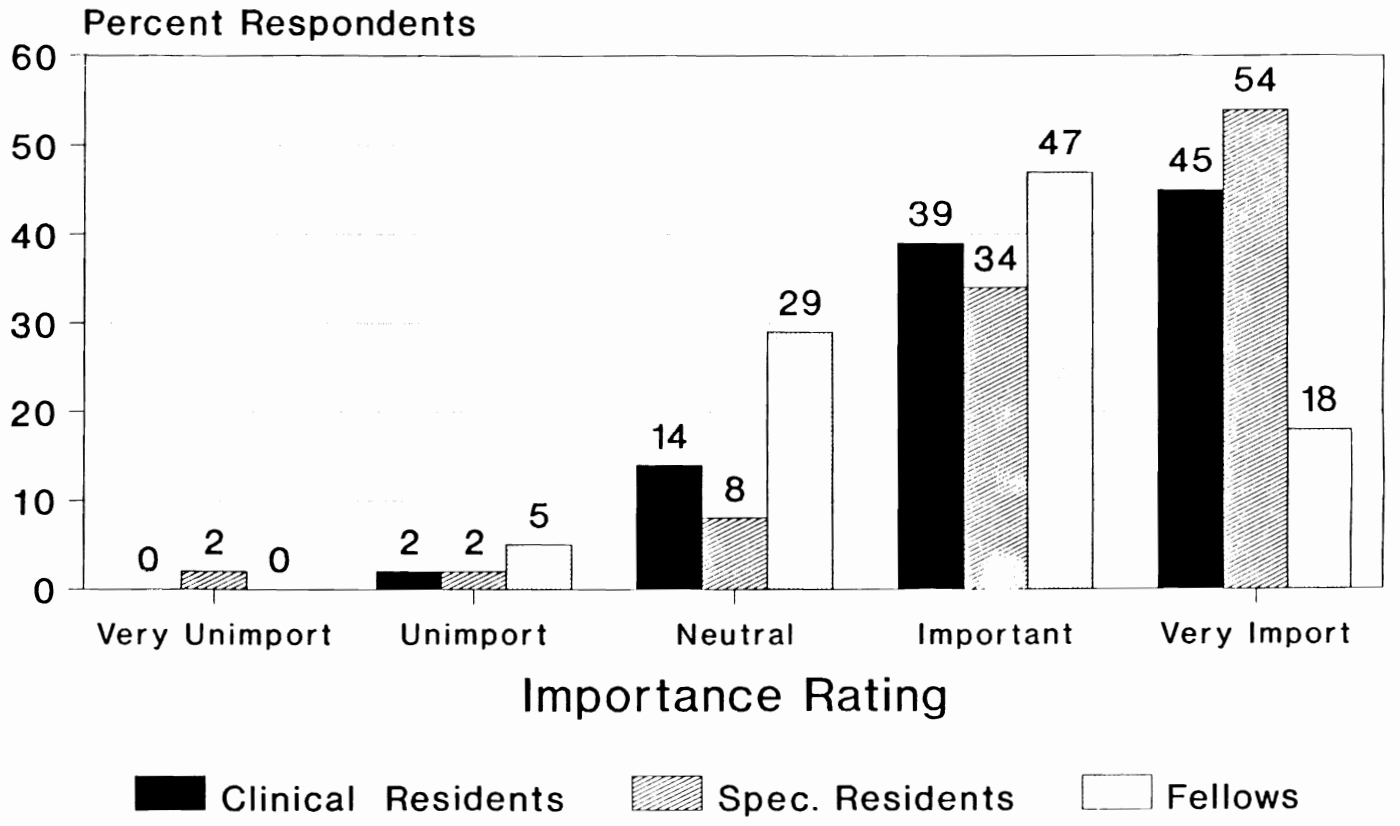

Figure 14. Rating: Patient interaction

Ideal Practice Site

.. has interaction with professionals

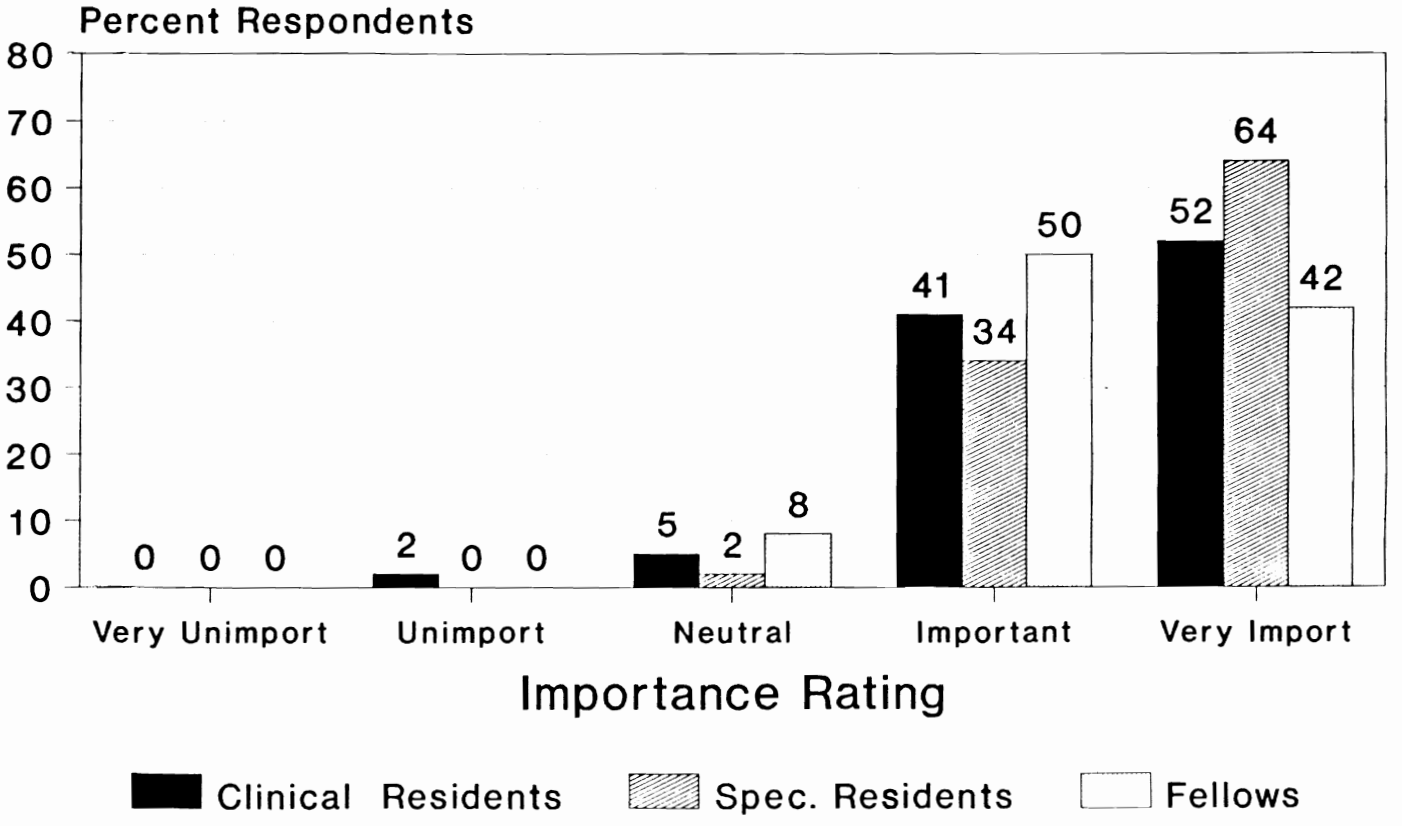

Figure 15. Rating: Professional interaction

Ideal Practice Site

.. allows for professional development

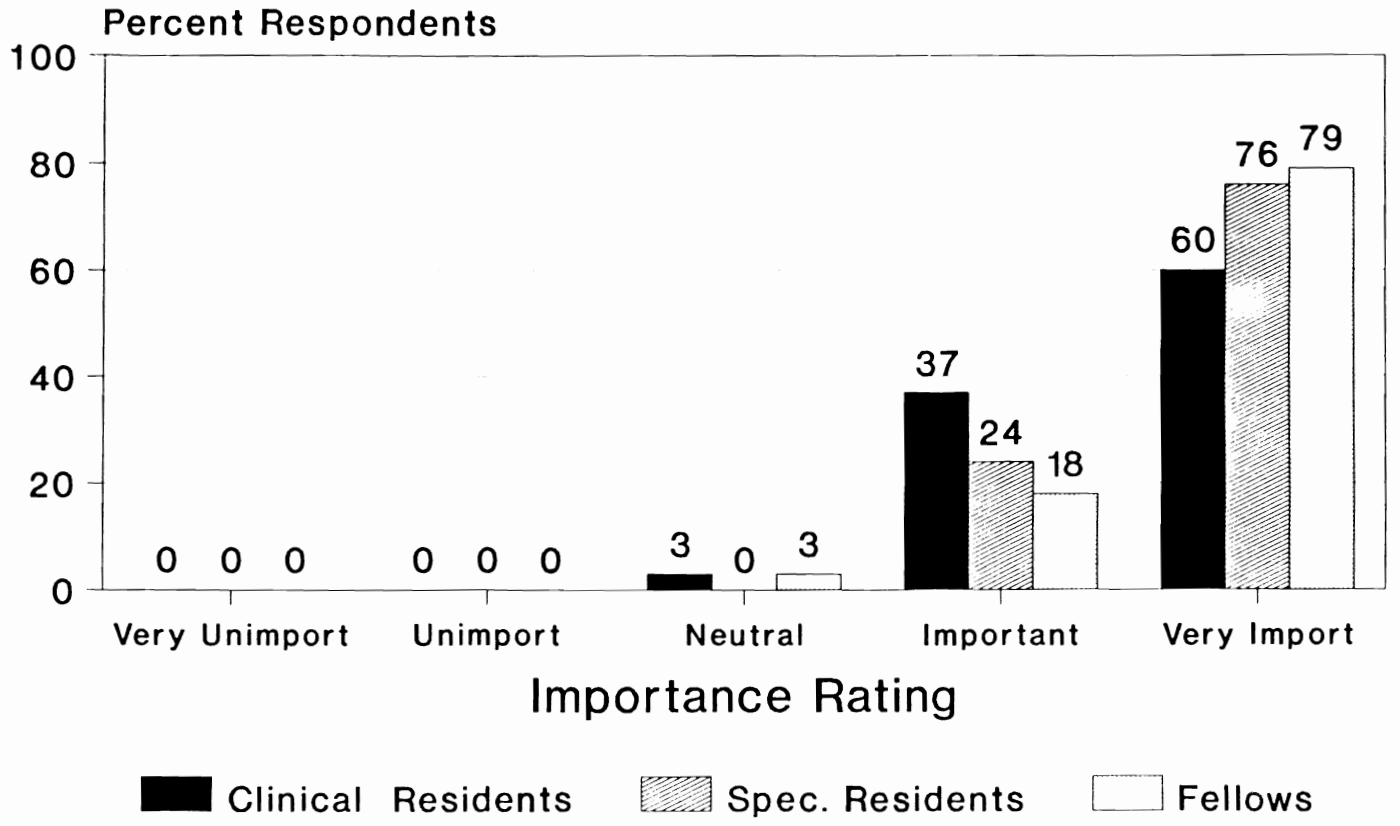

Figure 16. Rating: Professional development

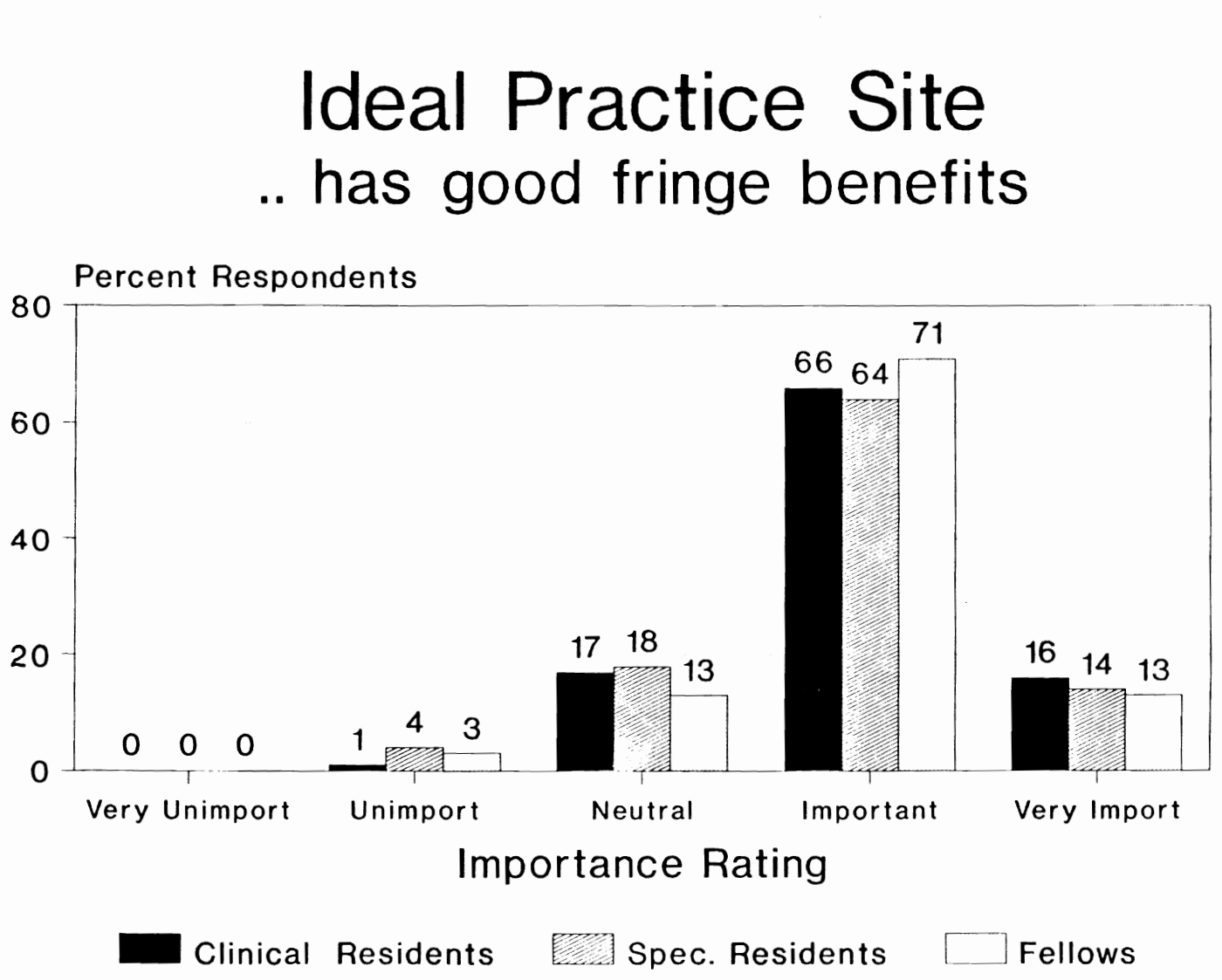

Figure 17. Rating: Fringe benefits

Ideal Practice Site

.. provides safe environment

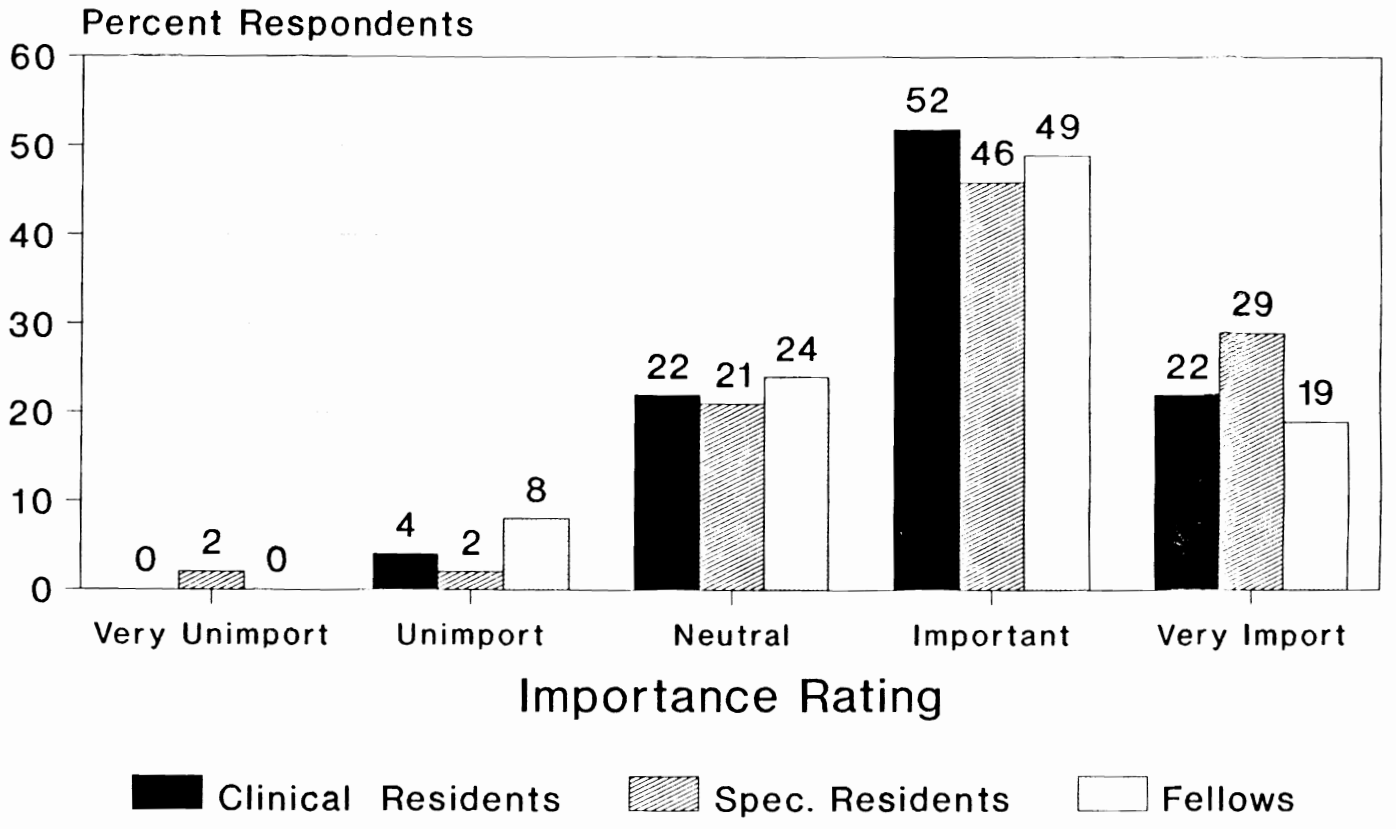

Figure 18. Rating: Safe environment

Ideal Practice Site

.. does not interfere with personal life

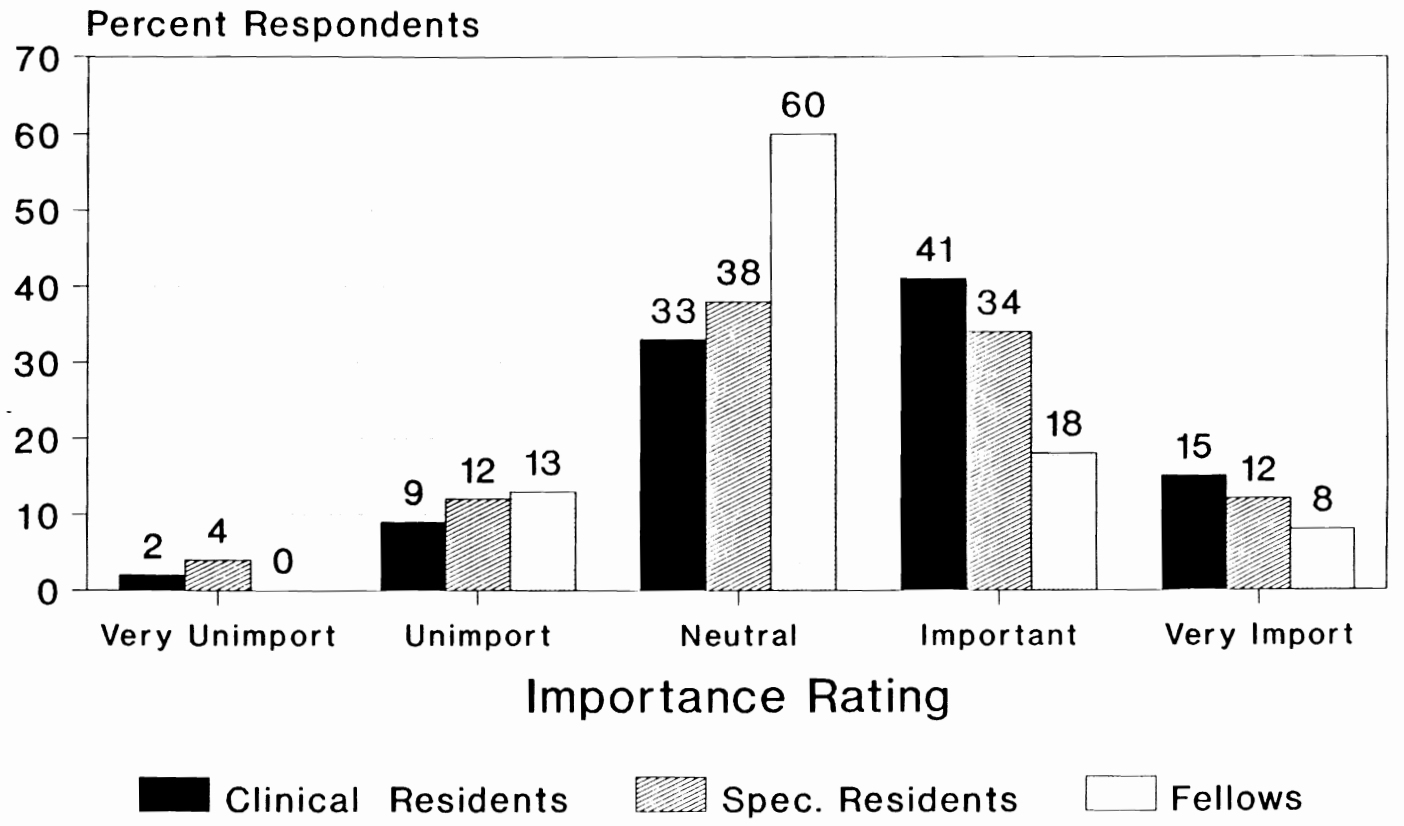

Figure 19. Rating: Personal life

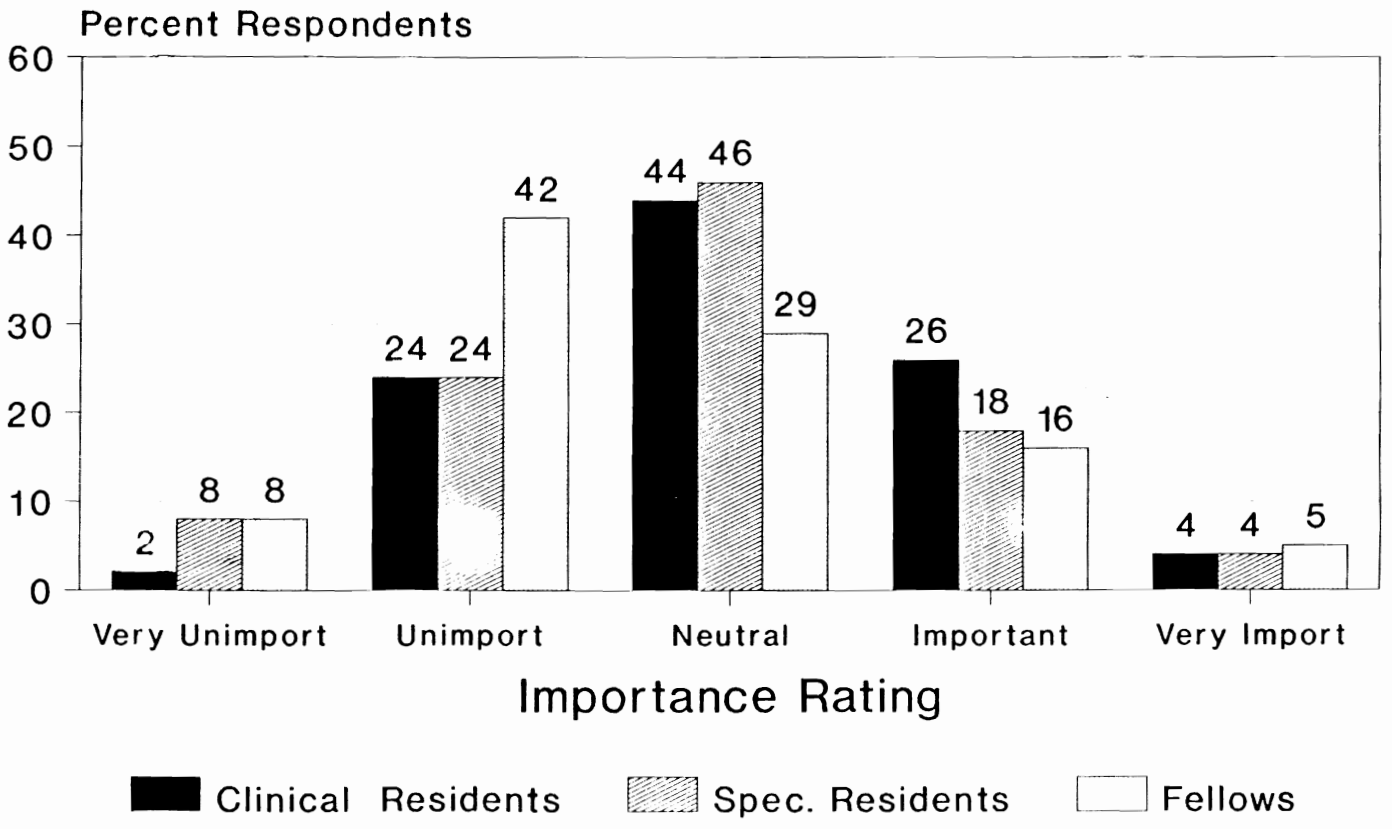

Figure 20. Rating: Stress level

Ideal Practice Site

.. allows creativity/ innovation

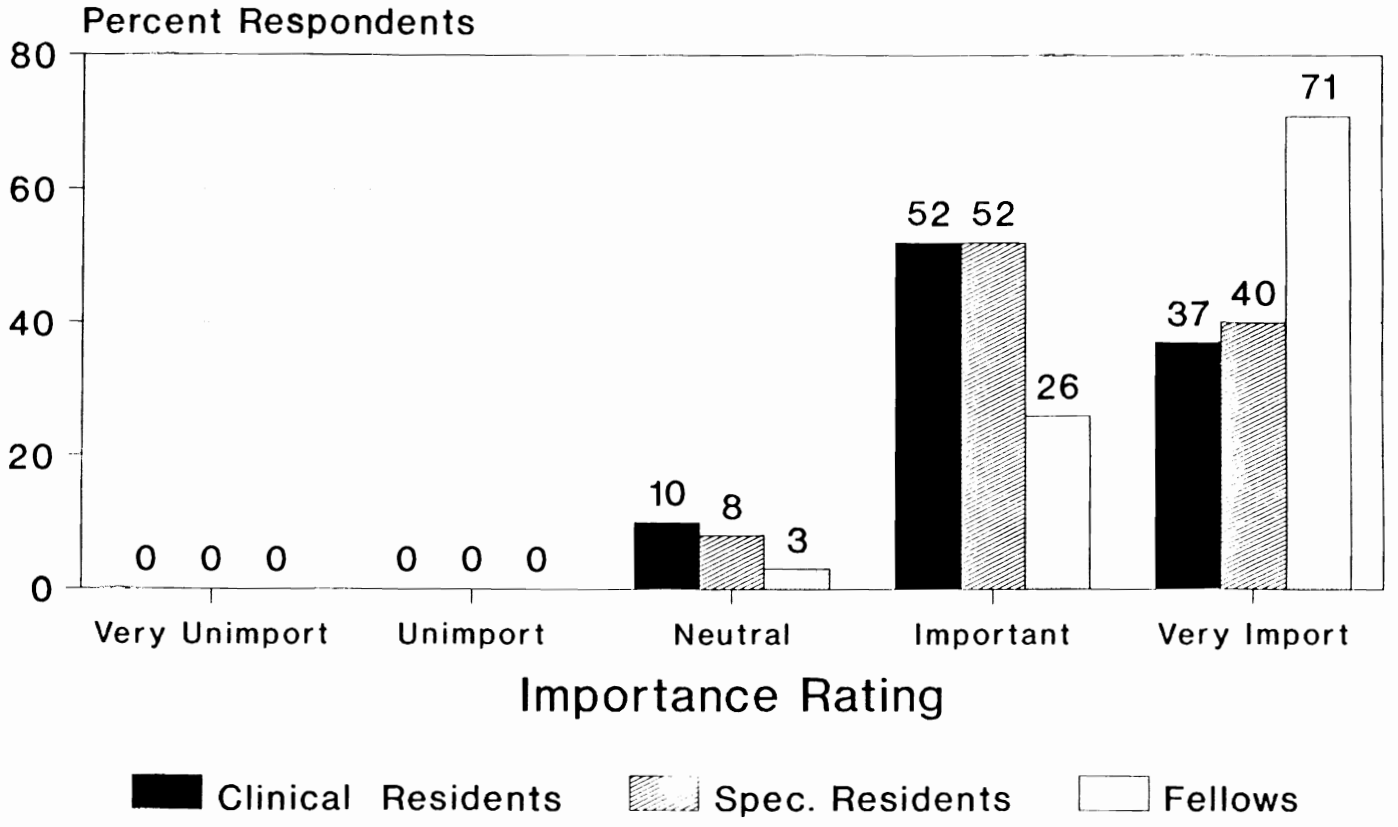

Figure 21. Rating: Creativity/innovation

Ideal Practice Site

.. respect by supervisors

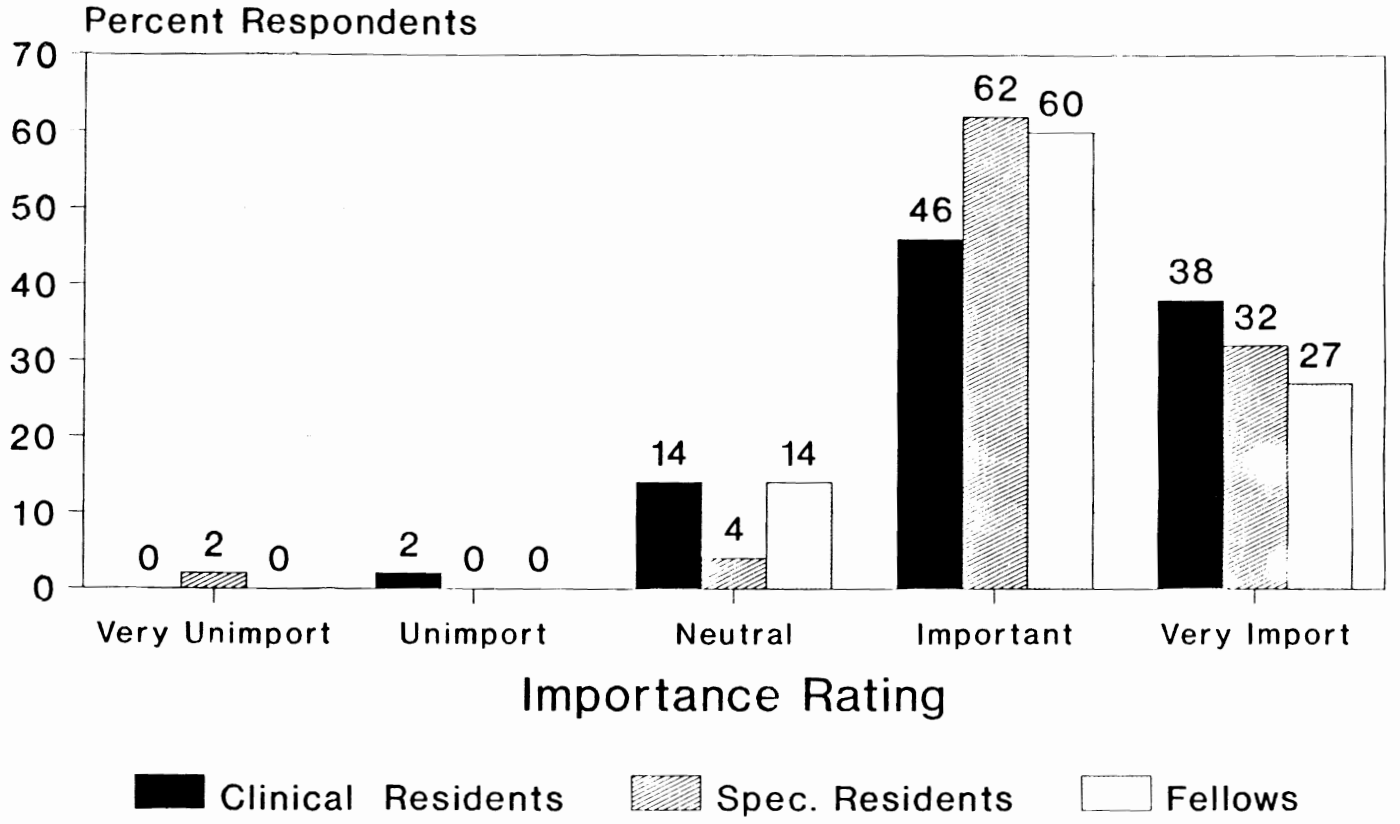

Figure 22. Rating: Supervisor's respect

Ideal Practice Site

.. able to influence policies

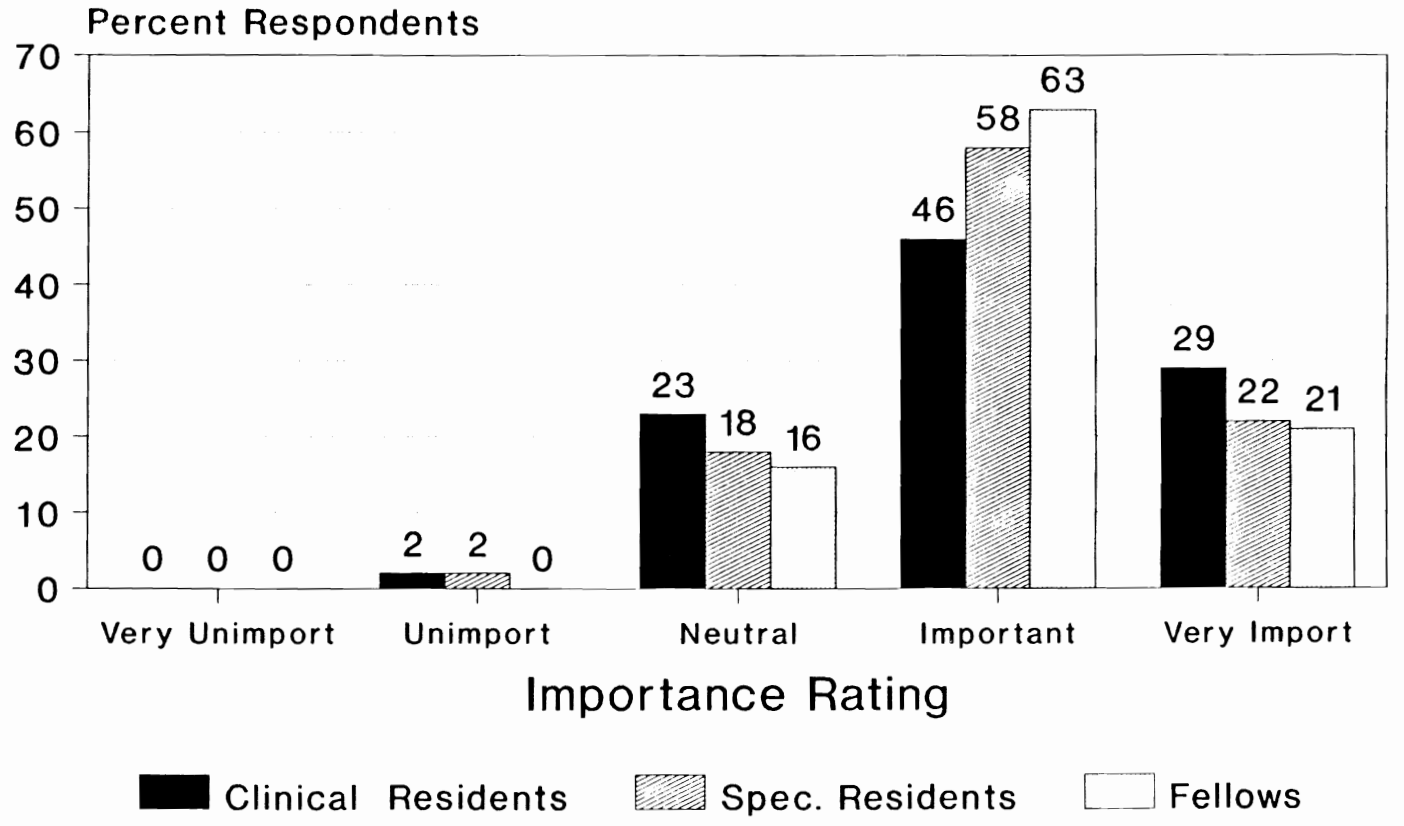

Figure 23. Rating: Influence policies

Ideal Practice Site

.. provides good working conditions

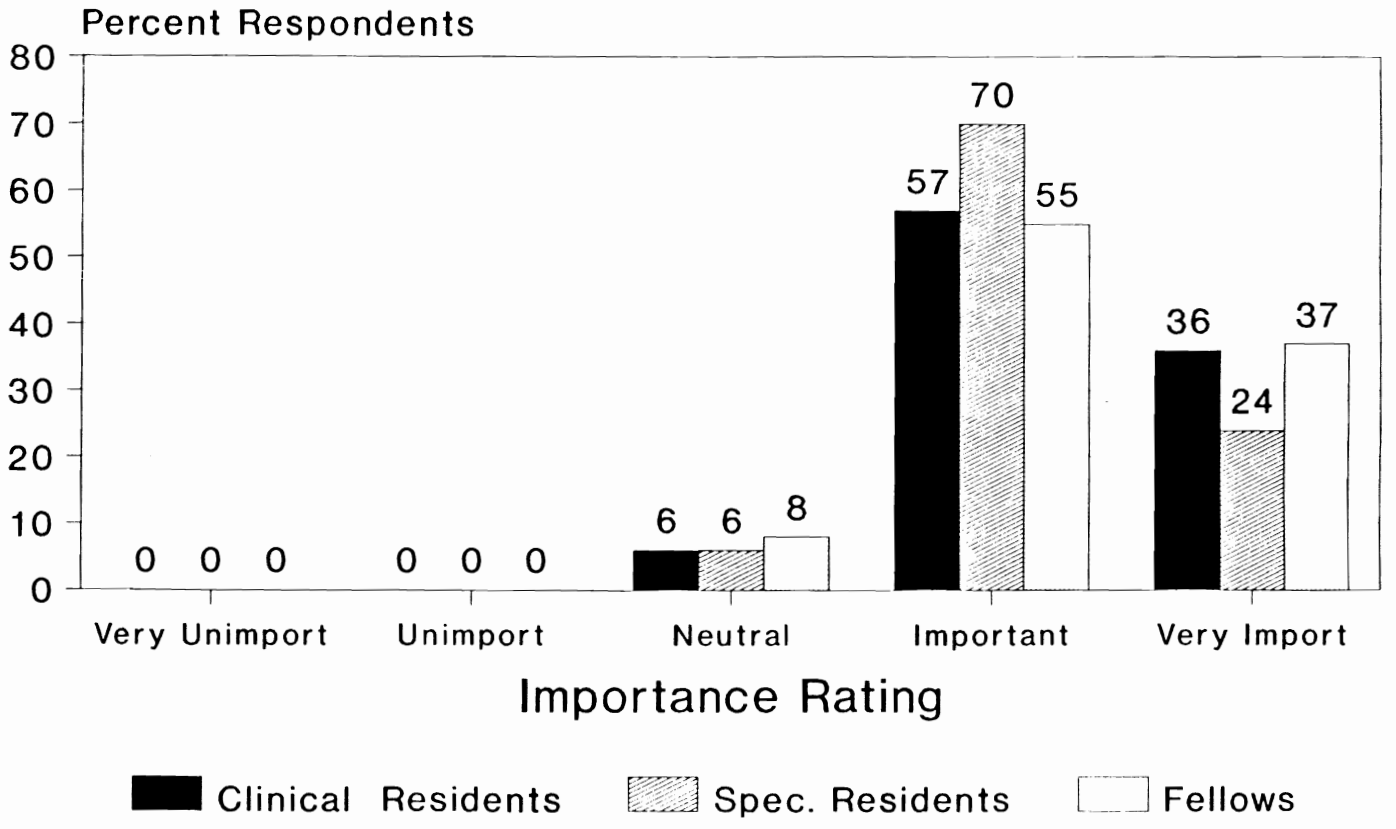

Figure 24. Rating: Working conditions

Ideal Practice Site

.. provides ample support personnel

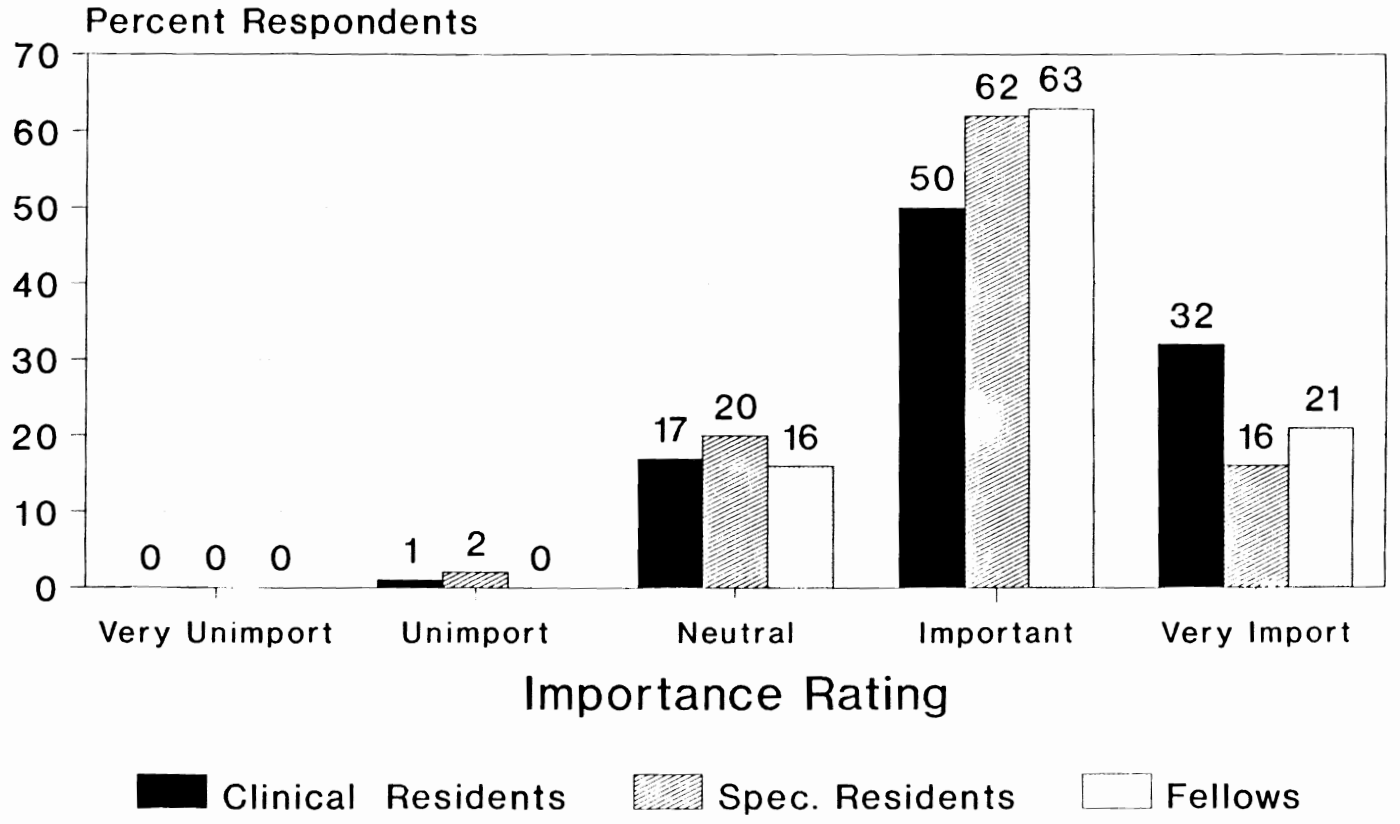

Figure 25. Rating: Support personnel

Table 11

Kruskal-Wallis Analysis of Job Characteristic Rating

Characteristic	Mean Rank			Chi Square* (Significance)
	C.RES	S.RES	FEL	
Interesting	93.21	103.66	101.63	2.700 (0.259)
Challenging	89.72	103.38	111.82	7.591 (0.022)
Prestigious	93.91	97.36	107.79	1.949 (0.377)
Personally rewarding	98.97	95.72	98.26	0.220 (0.896)
Opportunity for advancement	98.02	89.90	106.05	2.264 (0.322)
Beneficial to society	103.27	93.45	86.47	3.460 (0.177)
Financial security	100.22	92.67	93.42	1.047 (0.592)
Use professional knowledge	93.62	105.14	98.58	2.770 (0.250)
Provides autonomy	92.33	102.37	102.84	1.990 (0.372)
Financially rewarding	101.69	90.00	95.68	2.072 (0.355)
Consistent with professional goals	98.67	99.38	91.78	0.695 (0.706)
Preferred geographic location	103.45	106.77	71.12	12.224 (0.002)*
Compatible with family ties/commitments	98.59	99.23	92.20	0.477 (0.788)
Interaction with patients	101.84	110.75	70.42	14.087 (0.001)*
Interaction with other professionals	96.64	109.49	86.72	4.687 (0.096)

Table 11 Continued

Characteristic	Mean Rank C.RES	S.RES	FEL	Chi Square (Significance)
Allows professional development	90.24	106.58	108.57	4.814 (0.033)
Good fringe benefits	99.58	94.09	98.70	0.474 (0.789)
Safe work environment	95.66	101.01	87.91	1.395 (0.498)
Does not interfere with personal life	105.88	94.59	80.30	6.726 (0.035)
Low stress level	105.24	94.54	82.16	5.517 (0.063)
Allows creativity/ innovation	90.41	93.98	124.67	13.254 (0.001)*
Respect by supervisors	98.03	99.39	90.82	0.715 (0.700)
Influence policies	98.04	95.70	98.37	0.085 (0.959)
Good working conditions	100.92	89.94	100.39	1.840 (0.398)
Ample support personnel	103.40	87.63	96.45	3.356 (0.187)

Chi square with 2 degrees of freedom

* significant based on Bonferroni's adjustment to α

$\alpha_B = 0.05 / 25 = 0.002$

innovation, and preferred geographic location met this criterion for statistical significance between the responses of the three groups.

Position Accepted

The 115 individuals who had accepted a position were asked in Part III of the survey to categorize their job. The distribution of positions accepted by the residents and fellows is shown in Table 12. Hospital positions account for 64% of clinical residents, 46% of specialized residents and 23% of fellows. Additionally, 12% of clinical residents, 27% of specialized residents and 14% of fellows took positions that were faculty appointments with hospital obligations. Tenure track and clinical track faculty positions employed 21% of the clinical residents, 13% of the specialized residents and 38% of the fellows. Administrative positions, the pharmaceutical industry, community pharmacy, managed care and home health care were categories with little or no representation amoung 1990 residency and fellowship graduates. Four of the fellows who selected "other" were to become involved in drug research and trials.

Top Five Job Characteristics

After reviewing the 25 job characteristics rated in Part II of the survey, those with jobs were asked to rank the top five factors that influenced them in position acceptance. Tables 13, 14 and 15 display the job

Table 12

Positions Accepted

Position	Clinical Resident n (%)	Specialized Resident n (%)	Fellow n (%)
Director of Pharmacy Services	0 (0.0)	0 (0.0)	0 (0.0)
Associate or Assistant Director of Pharmacy Services	0 (0.0)	0 (0.0)	0 (0.0)
Coordinator of Clinical Services	4 (7.1)	3 (10.0)	3 (10.3)
Hospital Pharmacy: Clinical only	12 (21.4)	4 (13.3)	1 (3.4)
Hospital Pharmacy: Primarily clinical, some distribution	14 (25.0)	3 (10.0)	1 (3.4)
Hospital Pharmacy: Primarily distribution, some clinical	2 (3.6)	0 (0.0)	0 (0.0)
Hospital Pharmacy: Distribution only	0 (0.0)	0 (0.0)	0 (0.0)
Hospital Pharmacy: Clinical Specialist	4 (7.1)	4 (13.3)	2 (6.9)
Faculty: Tenure Track	5 (8.9)	2 (6.7)	8 (27.6)
Faculty: Clinical Track	7 (12.5)	2 (6.7)	3 (10.3)
Faculty with Hospital obligations ("shared position")	7 (12.5)	8 (26.7)	4 (13.8)
Pharmaceutical Industry	1 (1.8)	0 (0.0)	1 (3.4)

Table 12 Continued

Position	Clinical Resident n	(%)	Specialized Resident n	(%)	Fellow n	(%)
Community Pharmacy	0	(0.0)	1	(3.3)	0	(0.0)
Health Practitioner, Nonpharmacy field	0	(0.0)	0	(0.0)	0	(0.0)
Hospital Administration	0	(0.0)	0	(0.0)	0	(0.0)
Managed Care	0	(0.0)	1	(3.3)	0	(0.0)
Home Health Care	0	(0.0)	0	(0.0)	0	(0.0)
Other Position	0	(0.0)	2	(6.7)	6	(20.7)
Total	56	(48.7)	30	(26.1)	29	(25.2)

Table 13

Top Ranked Job Characteristics
Clinical Residents (n = 56)

Characteristic	Percent Respondents Ranked #1	#2	#3
Personally rewarding	21.4	8.9	3.6
Interesting	16.1	3.6	7.1
Use of knowledge	14.3	10.7	7.1
Consistent with goals	14.3	5.4	7.1
Preferred geographic location	8.9	8.9	7.1
Challenging	7.1	17.9	3.6
Professional development	5.4	14.3	7.1
Patient interaction	3.6	0.0	14.3
Compatible with family ties	1.8	3.6	10.7
Opportunity for advancement	1.8	5.4	5.4
Beneficial for society	1.8	0.0	1.8
Financial security	1.8	0.0	12.5
Professional interaction	0.0	5.4	3.6
Financially rewarding	0.0	3.6	1.8
Opportunity for creativity	0.0	3.6	0.0
Prestigious	0.0	1.8	1.8
Provides autonomy	0.0	1.8	1.8
No interference in personal life	0.0	1.8	1.8
Good working conditions	0.0	1.8	0.0

Table 14

Top Ranked Job Characteristics
Specialized Residents (n = 30)

Characteristic	Percent Respondents Ranked #1	#2	#3
Consistent with goals	23.3	13.3	0.0
Interesting	10.0	3.3	6.7
Use of knowledge	10.0	6.7	10.0
Opportunity for creativity	10.0	0.0	20.0
Personally rewarding	6.7	6.7	6.7
Compatible with family ties	6.7	6.7	3.3
Professional development	6.7	13.3	6.7
Preferred geographic location	6.7	3.3	6.7
Opportunity for advancement	3.3	0.0	3.3
Challenging	3.3	3.3	0.0
Provides autonomy	3.3	6.7	6.7
Patient interaction	3.3	6.7	6.7
Professional interaction	3.3	10.0	3.3
Beneficial to society	0.0	6.7	3.3
Financial security	0.0	6.7	3.3
No interference in personal life	0.0	3.3	0.0
Fringe benefits	0.0	0.0	3.3
Respect by supervisors	0.0	0.0	3.3
Influence policies	0.0	0.0	3.3

Table 15

Top Ranked Job Characteristic
Fellows (n = 29)

Characteristic	Percent Respondents Ranked #1	#2	#3
Interesting	24.1	6.9	6.9
Challenging	24.1	17.2	3.4
Personally rewarding	13.8	3.4	10.3
Opportunity for creativity	13.8	6.9	3.4
Compatible with family ties	10.3	0.0	3.4
Professional development	6.9	3.4	17.2
Consistent with goals	6.9	10.3	13.8
Use of knowledge	0.0	17.2	6.9
Professional interaction	0.0	10.3	6.9
Financial security	0.0	6.9	3.4
Provides autonomy	0.0	6.9	0.0
Opportunity for advancement	0.0	3.4	10.3
Preferred geographic location	0.0	3.4	3.4
Patient interaction	0.0	3.4	0.0
Beneficial to society	0.0	0.0	3.4
Financially rewarding	0.0	0.0	3.4
Support personnel	0.0	0.0	3.4

characteristics that were identified by members in each group as their most important (#1) influencing factor. The characteristics not top ranked by any members are not included in the tables. Twenty-one percent of the clinical residents selected "personally rewarding" as the most influential feature of their job. Interesting work, the opportunity to use professional knowledge, and consistency with professional goals were characteristics that each topped the list for over 14% of the clinical residents. Twenty-three percent of the specialized residents felt consistency with professional goals to be the most important in selecting their jobs. Three job characteristics (interesting, use of knowledge, and opportunity for creativity) were listed as most important for 10% each of this group. Only 7 of the 25 factors were considered most important by any of the 29 fellows answering this section. Interesting and challenging job characteristics each formed the basis for acceptance for 24% of responding fellows.

The responses were also analyzed to determine the percent of respondents who ranked each characteristic among their top five in importance in selecting their new position. The results of this analysis are shown in Tables 16, 17 and 18. Each table is organized from most frequently included in the respondents' top five to those features not included by any individual. Each group ranked the job

Table 16

Job Characteristics Ranked in Top Five
Clinical Residents (n = 56)

Characteristic	Percent of respondents who ranked characteristic #1 through #5
Professional development	46.4
Challenging	44.6
Use professional knowledge	41.1
Personally rewarding	41.1
Professional interaction	35.7
Consistent with goals	35.7
Interesting	33.9
Preferred geographic location	33.9
Patient interaction	32.1
Compatible with family ties	28.6
Financial security	26.8
Opportunity for advancement	21.4
Opportunity for creativity	16.1
Financially rewarding	14.3
Does not interfere with personal life	7.1
Influence policies and procedures	5.4
Good working conditions	5.4
Provides autonomy	5.4
Good fringe benefits	3.6
Low stress levels	3.6
Prestigious	3.6
Beneficial to society	3.6
Respect by supervisors	1.8
Ample support personnel	0.0
Safe work environment	0.0

Table 17

Job Characteristics Ranked in Top Five
Specialized Residents (n = 30)

Characteristic	Percent of respondents who ranked characteristic #1 through #5
Use professional knowledge	50.0
Consistent with goals	43.3
Opportunity for creativity	40.0
Personally rewarding	40.0
Professional development	33.3
Preferred geographic location	33.9
Interesting	30.0
Compatible with family ties	26.7
Financial security	26.7
Provides autonomy	26.7
Challenging	23.3
Patient interaction	23.3
Professional interaction	20.0
Opportunity for advancement	16.7
Financially rewarding	10.0
Influence policies and procedures	10.0
Beneficial to society	10.0
Does not interfere with personal life	6.7
Good working conditions	3.3
Good fringe benefits	3.3
Prestigious	3.3
Respect by supervisors	3.3
Safe work environment	3.3
Low stress levels	0.0
Ample support personnel	0.0

Table 18

Job Characteristics Ranked in Top Five
Fellows (n = 29)

Characteristic	Percent of respondents who ranked characteristic #1 through #5
Challenging	62.1
Interesting	44.8
Use professional knowledge	41.4
Consistent with goals	41.4
Opportunity for creativity	41.4
Personally rewarding	41.4
Professional development	34.5
Compatible with family ties	31.0
Opportunity for advancement	31.0
Financial security	24.1
Professional interaction	24.1
Preferred geographic location	20.7
Provides autonomy	10.3
Patient interaction	10.3
Ample support personnel	10.3
Financially rewarding	6.9
Influence policies and procedures	6.9
Beneficial to society	6.9
Good fringe benefits	3.4
Safe work environment	3.4
Prestigious	3.4
Does not interfere with personal life	0.0
Good working conditions	0.0
Respect by supervisors	0.0
Low stress levels	0.0

characteristics differently, but some trends can be seen. Many respondents in each group selected interesting, challenging, use of professional knowledge, consistent with professional goals, opportunity for professional development, and personally rewarding as important factors in their job acceptance. There was also a group of job characteristics that fell to the bottom of all three groups' lists. These noninfluential factors included low stress level, ample support personnel, respect by supervisors, safe work environment, good fringe benefits, and a prestigious position.

Salary

Only two of the 115 individuals responding to Part III of the survey were going to work less than full time. As shown in Table 19, 52.2% of all respondents categorized their annual salary in the $40,000 to $44,999 range. Thirteen percent of respondents selected $35,000 to $39,999 and another 13% fit the $45,000 to $49,999 category. Twenty percent of the respondents anticipate salaries of $50,000 or more. Clinical residents represent about 49% of the 115 respondents to the salary question; however they captured 73% of the low end $35,000-39,999 salaries. From this survey, however, one cannot conclude there is an immediate salary benefit with completion of a specialized residency or fellowship.

Table 19

Salaries Expected

Annual Salary Range ($)	Clinical Resident n (%)	Specialized Resident n (%)	Fellow n (%)
20,000-24,999	0 (0.0)	1 (3.3)	0 (0.0)
25,000-29,999	0 (0.0)	0 (0.0)	0 (0.0)
30,000-34,999	0 (0.0)	0 (0.0)	1 (3.4)
35,000-39,999	11 (19.6)	2 (6.7)	2 (6.9)
40,000-44,999	27 (48.2)	16 (53.3)	17 (58.6)
45,000-49,999	7 (12.5)	5 (16.7)	3 (10.3)
50,000-54,999	10 (17.9)	6 (20.0)	5 (17.2)
55,000-59,999	0 (0.0)	0 (0.0)	0 (0.0)
60,000-64,999	1 (1.8)	0 (0.0)	0 (0.0)
65,000-69,999	0 (0.0)	0 (0.0)	0 (0.0)
70,000 +	0 (0.0)	0 (0.0)	1 (3.4)
	56	30	29

How Position was Identified

The last questions on the survey asked how those with jobs found the position they accepted, and the number of interviews they had before this acceptance.

Sixteen percent of the 115 responding individuals had no interviews before accepting their positions. Half of those with jobs had from one to three interviews. The remaining 34% had more than three interviews.

Table 20 identifies where each group found their positions. The group as a whole can be roughly divided into thirds; one-third found their job through the ASHP placement service, one-third "through the grapevine," and one-third selected "other." The "other" methods of job placement or discovery included employment at their residency or fellowship site, full-time offer from part-time or previous employer, receipt of personal letter from college of pharmacy or potential employer, or creation of a new position. Only five individuals (4.5%) found their job through a journal advertisement.

Table 20

How Job Was Found

Method	Clinical Residents n (%)	Specialized Residents n (%)	Fellows n (%)
ASHP Placement	20 (36.4)	9 (30.0)	6 (22.2)
Journal Ad	2 (3.6)	2 (6.7)	1 (3.7)
Grapevine	17 (30.9)	9 (30.0)	12 (44.4)
Other	16 (29.1)	10 (33.3)	8 (29.6)

References

1. Penna RP, Sherman MS. Enrollments in schools and colleges of pharmacy, 1989-90. Am J Pharm Educ 1990;47:451-77.

2. Representatives of American Association of Colleges of Pharmacy, the American College of Apothecaries, the American College of Clinical Pharmacy, the American Pharmaceutical Association, the American Society of Consultant Pharmacists, the American Society of Hospital Pharmacists, and the National Association of Retail Druggists. Definitions of pharmacy residencies and fellowships. Am J Hosp Pharm 1987;44:1142-4.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The survey responses of 107 clinical residents, 50 specialized residents and 38 fellows allows for a better understanding of the demographics of these highly trained individuals. Their rating and ranking of the importance of 25 job characteristics in selecting a position illustrates which features actually determine job acceptance, and which are important only in describing an "ideal" situation. The types of positions accepted by those committed at the time of the survey gives employers and program participants an idea of what employment options will be available to those pursuing postgraduate training.

Demographics

The demographic configuration of the participating residents and fellows is important in understanding their responses to the job characteristics rating and ranking sections of the survey.

The number of women entering pharmacy practice has increased gradually to a majority (61%) position. Women constitute an even greater proportion of the postgraduate

residents and fellows (66%) responding to this survey. This reflects professional dedication on the part of women but also indicates men are entering the workforce upon graduation. Societal expectations of the male "provider" may explain the underrepresentation of men in postgraduate programs.

Marital status may be important in determining willingness to continue in educational efforts. The majority of the survey respondents were single and without dependents. Not only do residencies and fellowships require devotion of time and deference of salary, continuation may also require relocation, certainly more difficult with family obligations.

Residence

There are regional preferences for and emphasis on either residencies or fellowships. The large contingent of Pacific region Pharm.D. graduates were likely to enter the clinical residencies in their region. Half of the specialized residencies were in the South Atlantic and West South Central regions. Fellowships were most likely to be offered in the East North Central or West North Central regions. Just as some schools are overrepresented in the percentage of their graduates who participate in residencies or fellowships, there also appear to be regional philosophies regarding which programs are offered.

Education and Work History

Although more than one-third of the respondents had earned a nonpharmacy degree prior to entering their pharmacy program, once involved in their pharmacy education, only 32% paused to work as a pharmacist before continuing in postgraduate programs. Without working experience as a pharmacist, the respondents must have been encouraged into pursuing further education by their internship and externship experiences or the philosophies of educators.

There has been a recent emphasis on the importance of postgraduate training and the number of programs has increased to attempt to meet the training needs of the profession. The recommendation that residents and fellows have a Pharm.D. degree is clearly already being met by 98% of those in the clinical and specialized residencies. Not only do the fellows have a Pharm.D., nearly 70% also had completed a residency prior to entering their fellowship. The inability of preceptors to fill all their fellowship positions in the past may have influenced them into accepting students without residency training. As the number of Pharm.D. graduates increases, the number of residencies demanded and offered is expected to increase,[1] and hence, residency trained fellowship candidates will be more numerous.

Activities During Postgraduate Training

The respondents in residency programs were appropriately focused on patient-specific, clinical activities. Formal classwork, research and management received less emphasis. Many of the California residency programs include a distributive obligation; this might account for the number of residents performing these functions. The fellows had a greater emphasis on research; however, this emphasis was substantially less than the 75% time commitment recommended in the guidelines for clinical fellowship training programs developed and approved by the American College of Clinical Pharmacy, American Society of Hospital Pharmacists and the American Association of Colleges of Pharmacy.

Plans upon Completion of Program

Several of the respondents added notes to their survey, apologizing for not meeting the first return deadline because they were making career decisions during June and July. Although the majority of those surveyed had determined what position they would accept, 20% were still looking for pharmacy positions.

In assessing the willingness of the respondents to relocate for job opportunities, only 14% indicated they would be willing to move without restriction. Nearly half would consider preferred geographic regions although the

specification of this preference was not requested in this survey. The remaining respondents (37%) were concerned with satisfying another person or meeting family obligations; an indication of the importance of family and the balancing of work and personal ideals. The importance of family ties or commitment was also described in the Koda-Kimble et al. survey[2] and one of the basic characteristics of the "self-developer" worker category of Maccoby[3].

Rating Characteristics of Ideal Practice Site

As with other surveys that asked pharmacists to rate job characteristics, this group seems to be most concerned about self esteem or personal enrichment considerations. Respondents were desiring positions that would be interesting, challenging, personally rewarding, encourage use of professional knowledge, and allow for professional development. This list is similar to the factors identified as important in the surveys of Henderson et al.[4] and Carter and Segal.[5] Characteristics of positions such as financially rewarding, good fringe benefits, safe work environment, and good working conditions, may be perceived to be inherent of pharmacy jobs and hence not much of a concern for those looking for work. Ample support personnel did not receive high ratings although adequate technical support is a very important issue currently facing pharmacy practice. Perhaps the lack of work experience for many of the respondents,

the belief that they would not have distributive responsibilities, or the assumption that there would be support personnel in any job contributed to the more neutral rating of this characteristic.

The fact that residents rated patient interaction significantly higher than the fellows is not surprising given the patient specific, clinical nature of the residents' training and the research emphasis of the fellowships. Research does require innovative and creative thinking which explains the difference in rating of this feature between groups. The fellows were not concerned with geographic location to the extent the residents were. Since the fellows were more likely to be married, this is in conflict with the idea that family obligations would restrict relocation. This may reflect the recognition that fellowship training resulting in a desired research position may require a more open consideration of all geographic locations.

Positions Accepted

Of the 115 survey respondents, only 10 (one clinical resident, 3 specialized residents and 6 fellows) took positions outside the hospital or college of pharmacy arena. One explanation is their programs' association and probable philosophical agreement with the American Society of Hospital Pharmacists (ASHP) or the American College of

Clinical Pharmacy (ACCP). However, it is interesting to note how few are being drawn into nontraditional or community pharmacy or pharmaceutical industry positions.

Three-fourths of the residents took positions either with a hospital or as a faculty member with hospital obligations. They accepted primarily clinical positions (clinical specialist, clinical coordinator, and clinical staff), but 25% of clinical residents and 10% of specialized residents expected to have some distributive component to their job. Employers hoping to recruit pharmacists with advanced training should recognize that integrated services (clinical with some distribution) are not common, but are acceptable to some residents.

Half of the fellows accepted faculty positions; 28% tenure track, 10% clinical track and 14% a faculty position with hospital obligations. The research training during their fellowships, combined with previous residency experience, must have given them the credentials desired by colleges of pharmacy. Some of the fellowships did not offer extensive research training, focusing instead on clinical practice. This would explain the entry of 23% of the responding fellows into hospital pharmacy. An employer may want to determine the quality and quantity of research training if research is expected of the postfellowship applicant.

Job Characteristics and Position Selection

The ranking section of the survey identified the job characteristics those who had accepted jobs found important in their decision making process. These responses varied from the Part II rating of the 25 job factors because the respondents were asked to identify the 5 most important considerations associated with the position they selected. As most of the characteristics were rated at least "important" in Part II, this ranking question better identifies areas that actually influence the acceptance of positions by residents and fellows.

Recruiters should stress the interesting, challenging, and rewarding aspects of their positions. Emphasis must be placed on the opportunities to use professional knowledge and to be creative and innovative. Personal goals of the applicant should be addressed to determine if the position requirements are consistent with these ambitions. A plan for professional development could be discussed. Assuming the respondents' rankings were forthright and honest, salary, benefits and work environment considerations were not as important in determining job acceptance. Positive information about the region could be disseminated to encourage applicants to put aside geographic prejudices to fairly consider the position.

Salaries accepted by the residents and fellows varied but most were between $40,000 and $50,000. Regional costs of

living obviously would impact the value of a given salary in each area of the country.

In this group of pharmacists, the ASHP placement service offers an important source of available positions. Networking among pharmacists led to one-third of jobs being found "through the grapevine," quite a testimony to the phrase "it's not what you know, but who you know, that counts." Since many of the residents and fellows actually became employed at their training site, offering advanced programs is an effective way of "recruiting." Finally, although journal advertisement may translate to "grapevine" knowledge of available positions, it does not appear to have much direct value in recruiting this group of residents and fellows.

Limitations of Survey

Identifying and surveying the graduates of fellowship programs was the most problematic feature of this study. Since there is no list of fellows by name, fellowship preceptors were asked to distribute the surveys. A better method of surveying fellows would have involved a preliminary survey of the preceptors to identify individual fellows rather than fellowship sites. This would have led to a more accurate representation of this group and probably a better response. A return card with the number of surveys distributed to be indicated by the preceptor would have

allowed a more accurate calculation of return rate.

Determination of the geographic region of anticipated employment of the respondents was a question not included in the survey. It would be interesting to track whether the pharmacists migrated "home," stayed in their postgraduate training area, or were recruited to an entirely new region.

The 25 job characteristics may have not captured all of the important considerations in position selection. On the other hand, there may have been too many options to clearly differentiate impressions and to select five for ranking. As phrased, the job characteristics were open to interpretation by the respondents.

Conclusions

Employers anxious to recruit pharmacists with ASHP-accredited clinical and specialized residency training or fellows from ACCP member fellowships should develop presentations that emphasize the more personally rewarding, interesting, and challenging features of the job. The majority of these individuals will accept clinical positions in hospitals or become faculty members. Acquaintance with those offering residency or fellowship programs may result in finding interested candidates through informal means, though the ASHP placement service offers a more formal opportunity for recruiting efforts.

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APPENDIX

QUESTIONNAIRE

Survey of Graduating Residents and Fellows (1990)

This survey is being distributed to 1990 graduates of ASHP accredited clinical and specialized residencies and fellowships offered by members of the American College of Clinical Pharmacy. The purpose is to determine the factors that are important to this group in selecting employment and to ascertain what positions have been accepted.

Part I: Biographical Information

1. The program you are completing in 1990 is best described as:
   _____ Clinical Residency (1)
   _____ Specialized Residency (2)
   _____ Fellowship (3)
   _____ Other:_____(4)
   (Please specify)

2. Did your residency or fellowship have an area of specialization?
   _____ Yes (1)
   _____
   (Please indicate)
   _____ No (2)

3. How has your residency or fellowship time been spent? Please indicate the percent of time spent in each activity. Your time should total 100%.

Activity	Percent
Clinical (patient specific)	_____
Formal classwork	_____
Teaching	_____
Research	_____
Administration	_____
Drug distribution	_____
Other:_____ (Please specify)	_____

4. Please mark an "x" in each column to indicate in which region you lived most recently in the following categories: "home" with parents; while you completed bachelor's in pharmacy; Pharm.D.; residency (RES) and/or fellowship (FEL).

Region	(a) Home	(b) School/BS	(c) Pharm.D.	(d) RES	(e) FEL
1: New England: CT,MA,ME,NH,RI,VT					
2: Mid-Atlantic: NJ,NY,PA					
3: South Atlantic: DE, DC, FL, GA, MD,NC,SC,VA,WV					
4: East North Central: IL,IN,MI,OH,WI,					
5: East South Central: AL,KY,MS,TN					
6: West North Central: IA,KS,MN,MO,NE,ND,SD					
7: West South Central: AR,LA,OK,TX					
8: Mountain: AZ,CO,ID,MT,NV,NM,UT,WY					
9: Pacific: AK,CA,HI,OR,WA					
0: Out of U.S.A					

5. How many times did you relocate (from one city to another) during your post high school education and post graduate training?_____

6. Indicate the degrees you have received and the year you graduated.

		YEAR	
_____	Non-pharmacy degree (1)	_____	_____
_____	Other non-pharmacy degree(2)	_____	_____
_____	Bachelor's Pharmacy (3)	_____	
_____	Entry level Pharm.D. (4)	_____	
_____	Pharm.D.-Postgraduate (5)	_____	
_____	Master's Pharmacy (6)	_____	_____
_____	Other Pharmacy (7)	_____	_____ (please specify degree)

7. Did you work as a pharmacist before entering current program?
   _____ Yes Years of experience _____

   What was your practice setting?
   - _____ Hospital (1)
   - _____ Community-independent (2)
   - _____ Community-chain (3)
   - _____ Other (4) _____ (please specify)

   _____ No (5)

8. Gender
   - _____ Male (1)
   - _____ Female (2)

9. Marital Status
   - _____ Single (1)
   - _____ Married (2)
   - _____ Other _____ (3) (please specify)

10. Do you have non-spousal dependents?
    _____ Yes (1) _____ No (2)

11. Which statement best reflects your geographic mobility?
    - _____ I am able to relocate without restrictions. (1)
    - _____ I am able to relocate but have geographic preferences. (2)
    - _____ My ability to relocate is dependent on another person finding work. (3)
    - _____ My ability to relocate is dependent on another person's satisfaction with the new location. (4)
    - _____ I am restricted to a geographic area due to family ties/commitments. (5)

12. What are your plans upon completion of this residency/fellowship?
    - _____ Have accepted job (1)
    - _____ Looking for pharmacy position (2)
    - _____ Looking for non-pharmacy position (3)
    - _____ Graduate degree program (4) _____ (please specify)
    - _____ Residency (5) _____ (please specify)
    - _____ Fellowship (6) _____ (please specify)
    - _____ Anticipate being out of work force for personal reasons. (7)

Part II: Please circle the number that reflects the importance of each of the following job characteristics in the selection of your ideal practice site.

My ideal practice ...	1= Very Unimportant	2= Unimportant	3= Neutral	4= Important	5= Very Important
13. is interesting.	1	2	3	4	5
14. is challenging.	1	2	3	4	5
15. is prestigious.	1	2	3	4	5
16. is personally rewarding.	1	2	3	4	5
17. provides good opportunity for advancement.	1	2	3	4	5
18. is beneficial to society.	1	2	3	4	5
19. provides financial security.	1	2	3	4	5
20. allows me to use professional knowledge.	1	2	3	4	5
21. provides autonomy.	1	2	3	4	5
22. is financially rewarding.	1	2	3	4	5
23. is consistent with my professional goals	1	2	3	4	5
24. is my preferred geographic location.	1	2	3	4	5
25. is compatible with family ties/commitments.	1	2	3	4	5
26. provides opportunity for interaction with patients.	1	2	3	4	5
27. provides opportunity for interaction with other health professionals.	1	2	3	4	5
28. allows for professional development.	1	2	3	4	5
29. provides good fringe benefits.	1	2	3	4	5
30. provides a safe work environment.	1	2	3	4	5
31. does not interfere with life outside employment hours.	1	2	3	4	5
32. has low stress levels and low daily pressure.	1	2	3	4	5
33. provides an opportunity for creativity and innovation.	1	2	3	4	5
34. provides me with a feeling of high regard (respect) by supervisors.	1	2	3	4	5
35. allows me to influence policies and procedures within practice.	1	2	3	4	5
36. provides good working conditions.	1	2	3	4	5
37. provides me with ample support personnel.	1	2	3	4	5

Part III: If you have accepted a position please complete this section. If you have not, please return the survey in the enclosed envelope. Thank You!

38. The position you have accepted is best described as:
_____ Director of pharmacy services (1)
_____ Associate or assistant director of pharmacy services (2)
_____ Coordinator of clinical pharmacy services (3)

(continued on next page)

_____ Hospital pharmacy position:
- ____ Clinical only (4)
- ____ Primarily clinical, some distribution. (5)
- ____ Primarily distribution, some clinical (6)
- ____ Distribution only (7)
- ____ Clinical specialist (8) _____ (specialty)

_____ College of pharmacy faculty
- ____ Tenure track (9)
- ____ Clinical track. (10)

_____ College faculty with hospital obligations ("Shared" position) (11)
_____ Pharmaceutical industry (12)
_____ Community pharmacy practice (13)
_____ Health practitioner in field other than pharmacy (14)
_____ Hospital administration (15)
_____ Managed care (16)
_____ Home health care (17)
_____ Other position (18) _____(please specify)

39. In selecting your new position, what were the five most important factors that influenced your acceptance? Please review the statements from Part II, questions 13 through 37, and rank the top five job characteristics you considered in making your decision. Please enter your selections using the question numbers from above.

(#1 being most important and #5 being least important of top five job factors)

____ #1 ____ #2 ____#3 ____#4 ____#5

40. Your new position is:
____ full time (1) ____ part time (2) _____
(anticipated hours/week)

41. Please indicate your expected annual salary in your new position.

_____ < $20,000 (1)	_____ $20,000-24,999 (2)
_____ $25,000-29,999 (3)	_____ $30,000-34,999 (4)
_____ $35,000-39,999 (5)	_____ $40,000-44,999 (6)
_____ $45,000-49,999 (7)	_____ $50,000-54,999 (8)
_____ $55,000-59,999 (8)	_____ $60,000-64,999 (10)
_____ $65,000-69,999 (11)	_____ $70,000 + (12)

42. How did you find out about your new position?
____ ASHP Placement service (1) ____ Journal advertisement (2)
____ "Grapevine" (3) ____ Other (4)_____
(please specify)

43. How many positions did you interview for prior to accepting this position?
_____ (specify number)

Thank you for completing this survey! An addressed, stamped envelope has been included for you convenience. Please return questionnaire by JUNE 1, 1990 to:

Carolyn Kowalchik, RPh.
2040 South Bluebell Drive
Bountiful, Utah 84010